DCN: 4149 DCN 4149

DEPARTMENT OF THE AIR FORCE
130th AIRLIFT WING (AMC)
1679 Coonskin Drive, Unit #2
Charleston, West Virginia 25311-5002

24 June 2005

Colonel Timothy L.. Frye
Commander, 130th Airlift Wing
1679 Coonskin Drive
Charleston, WV 25311-5000

2005 Defense Base Closure and Realignment Commission
2521 S. Clark St., Ste. 600
Arlington, VA 22202

Dear BRAC Commission Members,

I sincerely thank you for your tireless efforts to ensure the realignment and closure process is fair, open, and balanced. Your job is demanding and we at the 130th Airlift Wing are aware of the enormity of your task. We are grateful for the opportunity to talk with you about the tremendous military value our Wing provides to West Virginia and the United States of America. We perform many important missions for our nation across a broad spectrum of conflict throughout the world. In addition, we also assist the citizens of our state in time of need. Nearly 90 percent of our members are citizens of West Virginia and have strong ties within our state. As we fulfill our state obligations, we strengthen the relationships that exist between the grass roots and the armed forces. I feel this support is vital to our nation and the Department of Defense as we perform missions around the globe.

This material is being provided to help you evaluate the Department of Defense's recommendation for the 130th Airlift Wing. During BRAC deliberations, capacity data was used as the foundation for the entire analytical process. A primary goal was to increase the number of aircraft at those Air Reserve Component installations with a mobility mission to 12. Yet the capacity data used for our installation was grossly inaccurate. Minutes from the Base Closure Executive Committee reflect we do not have sufficient land to support more than eight aircraft. In truth, we can immediately park and operate 12 C-130s. With minor ramp expansion, we can support 16 C-130s within our existing boundaries. This error substantially eroded the entire analytical process as it was applied to our base.

Other substantial deviations and omissions also occurred within the report. For example, our strength is nearly 104 percent, yet strength was barely considered in the analysis. The positions lost at Yeager may be gained elsewhere in the Air National Guard, but where will the highly trained and experienced members of our unit go? The commuting distance to the nearest Air National Guard base not scheduled for realignment or closure is over 250 miles away. It is impossible to quantify the spirit of our people and what would be lost if they could not continue their service. The proven combat record of our aviators and maintainers was not considered, nor was our readiness. Future expansion potential was never addressed, nor were our contributions to homeland defense. Much of the data requested was scored with a substantial bias against the smaller C-130 units collocated with civilian airfields, while at the same time never recognizing the benefits of this relationship.

All the points discussed above are expanded upon in this document, but I am always available to answer any questions you may have. On behalf of all the men and women of the 130th Airlift Wing - past, present, and future, I thank you for your significant contributions to our nation's defense.

Sincerely,

TIMOTHY L. FRYE, Colonel, WVANG
Commander, 130th Airlift Wing

The 130th Airlift Wing
Delivering Freedom with Courage

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130 AW COMMANDER'S
BIOGRAPHY

BIOGRAPHY

UNITED STATES AIR FORCE

COLONEL TIMOTHY L. FRYE

Colonel Timothy L. Frye is the Wing Commander of the 130th Airlift Wing located at Yeager Airport, Charleston, West Virginia. As Wing Commander, he is responsible for formulating, developing and coordinating all policies, programs and plans for the personnel and aircraft of the 130th Airlift Wing. He is an evaluator pilot with over 6,000 hours in C-130, HC-130, and LC-130 aircraft. Colonel Frye is a 1980 graduate of the United States Air Force Academy. He earned his pilot rating at Laughlin Air Force Base, TX in 1981 and was assigned to the 39th Tactical Airlift Squadron, Pope Air Force Base, NC. He separated from the Air Force in 1987 and became a member of the 106th Aerospace Rescue and Recovery Group of the New York Air National Guard. Colonel Frye was first assigned to the 130th Airlift Wing in 1989 and flew with the unit as a line pilot during OPERATION Desert Shield and Desert Storm. In 1998, he accepted an assignment to ANG Detachment 13 in Christchurch, New Zealand where he served as the Operations Officer and then the Deputy Commander of OPERATION Deep Freeze, a joint mission supporting the United States Antarctic Program. During his tenure he oversaw Air National Guard, United States Air Force, United States Navy, and United States Coast Guard activities in Antarctica. Colonel Frye returned to the 130th Airlift Wing as the Operations Group Commander in May 2000. He assumed his current position as the 130th Airlift Wing Commander in October 2001. From May – August 2003, he also served as the Vice Commander of the 379th AEW in the Central Command Area of Responsibility.

EDUCATION:

1980	Bachelor of Science, International Affairs, United States Air Force Academy
1992	Squadron Officer School, by correspondence
1994	Air Command and Staff College, by correspondence
1995	Masters, Political Science, Marshall University, Huntington, West Virginia
2000	Air War College, by correspondence

ASSIGNMENTS

1980-1981	Laughlin AFB, TX – Student Pilot
1981-1987	Pope AFB, NC – Line Pilot, Instructor Pilot, Special Operations Low Level I / Special Operations Low Level II Pilot and Instructor Pilot, Training Officer, Assistant Chief Pilot, Special Operations Low Level II Program Manager
1988-1989	106 ARRG County NYANG – Line Pilot, Instructor Pilot, Evaluator Pilot, Chief of Training, Chief of Standards and Evaluation

1989-1998 130 AW WVANG – Line Pilot, Instructor Pilot, Evaluator Pilot, Chief of Tactics, Chief of Plans, Airlift Operations Officer
1998-2000 ANG Detachment 13 Christchurch, NZ – Operations Officer, Deputy Commander for Operation Deep Freeze
2000-2001 130th Airlift Wing, WVANG – Operations Group Commander
2001-Present 130th Airlift Wing, WVANG – Wing Commander

MAJOR AWARDS AND DECORATIONS:

Meritorious Service Medal (with 1 Oak Leaf Cluster)
Air Medal
Aerial Achievement Medal
Air Force Commendation Medal
Air Force Achievement Medal
Air Force Outstanding Unit Award with 2 devices
National Defense Service Medal
Antarctica Service Medal
Armed Forces Expeditionary Medal with 1 device
Southwest Asia Service Medal with 2 devices
Humanitarian Service Medal
Air Force Overseas Ribbon – Short
Air Force Longevity Service Ribbon with 4 devices
Small Arms Expert Marksmanship Ribbon
Air Force Training Ribbon
Kuwait Liberation Medal (Kingdom of Saudi Arabia)
Kuwait Liberation Medal (Kingdom of Kuwait)

EFFECTIVE DATES OF PROMOTION:

Second Lieutenant	28 May 1980
First Lieutenant	28 May 1982
Captain	22 June 1984
Major	11 February 1993
Lieutenant Colonel	07 December 1997
Colonel	21 March 2002

(Current as of: 25 April 2002)

130 AW VICE COMMANDER'S
BIOGRAPHY

BIOGRAPHY

UNITED STATES AIR FORCE

COLONEL JEROME M. GOUHIN

Colonel Jerome M. Gouhin is currently assigned to the 130th Airlift Wing located at Yeager Airport, Charleston, West Virginia. He is the designated 130th Airlift Wing Vice Commander. Colonel Gouhin has served as Squadron Commander, Air Operations Officer, Squadron Operations Officer, Chief of Current Operations, Chief of Training, Chief of Standards and Evaluations, and Chief of Safety.

Colonel Gouhin was commissioned as a Second Lieutenant in 1984 upon completion of the Academy of Military Science. He completed United States Air Force Undergraduate Pilot Training at Columbus AFB Mississippi in 1985. When activated for the Persian Gulf War, he served as an Aircraft Commander for the 1630th Tactical Airlift Wing (Provisional in Southwest Asia. Other major deployments include Phoenix/Coronet Oak Rotations (Panama), Southern Watch (Saudi Arabia), Joint Forge (Bosnia/Kosovo), and Team Spirit (Korea). Colonel Gouhin is a Command Pilot, Functional Check Flight Pilot, Flight Examiner, and Instructor in the C-130 aircraft with over 4,800 military flying hours. He holds the civilian Airline Transport, Commercial, Private Pilot ratings and was a designated Federal Aviation Administration Accident Prevention Specialist.

Colonel Gouhin was born in Ashtabula Ohio and is married to the former Diane Carnes of Elkview, West Virginia. They have two children, a son Michael and daughter Rachel.

EDUCATION:

1982 Bachelor of Arts degree in Industrial Arts, Kent State University, Kent Ohio
1984 Academy of Military Science, McGee-Tyson ANGB, Tennessee
1987 Air National Guard Advanced Airlift Tactics Training Course
1989 Air National Guard Aircraft Mishap Prevention Course
1993 Squadron Officer School, by correspondence
1994 Air Command and Staff College, by seminar
2000 Air War College, by correspondence

ASSIGNMENTS:

Jun 01 – Present	Vice Wing Commander, 130th Airlift Wing, Charleston, WV
Jan 00 – Jun 01	Squadron Commander, 130th Airlift Squadron, Charleston, WV
Dec 97 – Jan 00	Squadron Operations Officer, 130th Airlift Squadron, Charleston, WV
Apr 94 – Dec 97	Chief, Current Operations, 130th Airlift Squadron, Charleston, WV
May 93 – Apr 94	Chief, Standards and Evaluation, 130th Airlift Wing, Charleston, WV
Jan 90 – May 93	Chief of Training, 130th Airlift Squadron, Charleston, WV
Aug 90 – Apr 91	Aircraft Commander, Operation Desert Storm/Shield, Southwest Asia
Aug 88 – Aug 90	Chief of Safety, 130th Airlift Wing, Charleston, WV

MAJOR AWARDS AND DECORATIONS:

Meritorious Service Medal
Air Medal
Aerial Achievement Medal
Air Force Commendation Medal
Air Force Achievement Medal
Air Force Outstanding Unit Award with 2 devices
National Defense Service Medal
Antarctica Service Medal
Armed Forces Expeditionary Medal with 1 device
Southwest Asia Service Medal with 2 devices
Humanitarian Service Medal
Air Force Overseas Ribbon - Short
Air Force Longevity Service Award Ribbon with 4 devices
Small Arms Expert Marksmanship Ribbon
Air Force Training Ribbon
Kuwait Liberation Medal (Kingdom of Saudi Arabia)
Kuwait Liberation Medal (Kingdom of Kuwait)

Foreign Decorations:
Kuwait Liberation Medal (Saudi Arabia)
Kuwait Liberation Medal (Kuwait)

EFFECTIVE DATES OF PROMOTION:

Second Lieutenant	27 July 1984
First Lieutenant	30 Aug 1987
Captain	1 Nov 1989
Major	4 Nov 1993
Lieutenant Colonel	12 Jan 1998
Colonel	22 Mar 2002

DATA CERTIFICATION SHEET

RECORD OF COORDINATION/CERTIFICATION	DATE 12-Jun-05

SUBJECT

Report of Data and Analysis Deviations of the BRAC Proposed Realignment of the 130th AW

PROJECT OFFICER (NAME, RANK, AND TITLE)	TELEPHONE NUMBER
Kevin S. Ray, Captain, 130th AW Chief Intelligence Officer	(304) 341-6120

COORDINATION AND CONCURRENCE

OFFICE SYMBOL	NAME, RANK, AND TITLE	DATE	SIGNATURE
MXS/CC	Randy D. Buckner, Lt. Col	12 June 05	Randy D. Buckner
OG/AOO	Johnny M. Ryan, Lt. Col	12 Jun 05	Johnny M. Ryan
MSG/CC	Paige P. Hunter, Lt. Col	12 Jun 05	Paige P. Hunter

REMARKS

I certify that the attached document has been properly coordinated with the above agencies and contains factual information to the best of my knowledge.

NAME, RANK, AND TITLE	SIGNATURE	DATE
Timothy L. Frye, Colonel, 130th AW/CC	Timothy L. Frye	12-Jun-05

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY
Base Realignment and Closure (BRAC) report, The 130th Airlift Wing, of Charleston, West Virginia

Major General Allen E. Tackett, Adjutant General State of West Virginia

Introduction

In this summary we will demonstrate:

1. ***The capacity data used to make this realignment decision was not accurate.***

2. ***The criteria to address infrastructure was flawed and biased against smaller efficiently managed ANG facilities. And it did not allow the appropriate input of data related to potential future capabilities and expansion.***

3. ***We do in fact have surge capacity that was not considered in the initial analysis.***

4. ***With the accurate capacity data and analysis that we are the lowest operational cost organization within the C130 community.***

5. ***And finally, the BRAC red team has determined there will NEVER be a payback associated with this ill-conceived realignment.***

And we agree: The BRAC is about military value. Not just from a cost standpoint. It is a matter of true military value to effectively protect our citizens and our way of life.

Deviations from BRAC Military Value Criteria

- Capacity data for all 4 criteria is inaccurate
- All other calculations are inaccurate and must be reconsidered
- Criterion 1. Joint, Homeland Defense, Disaster Response mission impact not considered
- Criterion 2. Infrastructure data presents incomplete and inaccurate picture
- Criterion 3. Surge data inaccurate
- Criterion 4. Cost efficiency and personnel strengths not considered at all
- Criterion 5. Payback period = NEVER

BRAC Red Team

- The BRAC Red Team believes the Air Force presentations give the perception that in many cases the Air Force is using BRAC only to move aircraft and gain MILCON funding rather than reducing excess infrastructure.
- Air Force goals for BRAC 2005 appear to focus on operational requirements rather than reduction of excess infrastructure capacity under the BRAC Law.
- BRAC actions should result in savings in installation and personnel costs.
- As currently reflected, most Air Force actions do not result in savings....

Source: DOD BRAC Red Team USAF White Paper, 18 Apr 2005

130th Airlift Wing Military Value

- Higher Mission Compatibility Indices (MCI) for 3 out of 4 criteria
- Support 12 aircraft with existing infrastructure for $1 per year at no additional cost with no limitations
- Lowest operating and maintenance costs
- Lowest cost per flying hour
- 2nd lowest cost of living
- Highest personnel strength
- 2nd Highest retention
- Highest mission capability rates
- Less congested training airspace

The 130th AW is an organization that consistently maintains the highest readiness and **over 100 % manning** of the most qualified air and ground crews in the military inventory. The 130th has performed **operational missions** in every theatre for every combatant commander, from Homeland Defense to being some of the first aircraft in Afghanistan and Iraq. All while being the **lowest cost** organization in the system. Now that is military value.

Military value is about the most capable forces for the **least possible operational costs**. For a lease cost of $1 per year we can maintain 12 C130s at the lowest operational cost in the system manned by airmen and women with an average of 22 **years of maintenance experience and an average of over 3100 flying hours per aircrew member**. A unit that has maintained an **operational readiness rate of 98%** in the most austere conditions in the GWOT while flying over **56,000 combat hours** since 9/11.

Joint Operations

All of our WVNG army units have served in **joint assignments** in every theatre as a part of the global war on terrorism while maintaining over 100% strength at a time when the Army can't meet its recruiting goals. This success is a direct result of the ability to operate jointly with the 130th Airlift Wing. Our Special Forces battalion and our Special Operations Detachment – Europe maintain the highest level of joint readiness and airborne qualifications as a result of direct training affiliations with the 130th AW.

We have been tasked by the Chief of the National Guard Bureau as the lead state on several key **joint Homeland Defense Initiatives** to include the Civil Support Team and CBRNE Enhanced Response Force programs which have a specific response focus for the National Capital Region. Not only are these organizations joint in nature but they rely on this AW to transport them around the Nation to key sites such as the NCR within the required response time.

During the Presidential Inauguration a West Virginia Task force consisting of these units and our C-130s remained on a one hour standby to support the NCR. The CERF, made up of key 130th medical and security personnel was the only one on call that day an the only CERF to have fully certified in all its mission categories. Now that is military value, not in dollars but in key assets to protect our Nation.

130th Airlift Wing – HIGH Value, LOW Cost

- **Lowest** Operations and Maintenance costs
- Compared to similar ANG C-130 units
- **Lowest** cost per flying hour
- Compared to ANG C-130H units gaining aircraft
- **2nd Lowest** cost of living
- Compared to all C-130 units gaining aircraft
- Total number of ANG personnel remains constant

- Result = Relocating aircraft, personnel, mission from Yeager will result in HIGHER costs to DoD in all areas
- Realignment payback period?

Sources: BRAC 2005 Vol V, Part 1 of 2, May 2005, Dept of the AF Analysis and Recommendations; http://www.brac.gov/Supplemental.aspx

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Candidate Recommendations Financials Summary
Sorted on Net Present Value (Highest to Lowest)

BRAC CRITERION #4

Candidate Recommendation	Description	Gross Savings/(Costs) $K	20 Yr NPV Savings/(Costs) $K	1-Time (Costs) $K	Annual Recurr Savings/(Cost $K	Payback Years	Net Military Job Change	Net Civilian Job Change	Total Job Change	Status
USA-0096	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Allen, PR	(6,344)	(20,911)	(14,567)	(505)	Never	0	0	0	Tentatively Recommended
USA-0027	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Lafayette, IN	1,782	(21,757)	(23,538)	102	100+	0	0	0	Tentatively Recommended
USA-0016	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Chaffee, AR	1,504	(21,976)	(23,480)	73	100+	0	0	0	Tentatively Recommended
USAF-0088	Realign Reno-Tahoe Intl Airport AGS, CA (Enclave ECS element and DCGS)	(2,708)	(22,101)	(19,393)	(417)	Never	0	0	0	Tentatively Recommended
USA-0029	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center NW Houston, TX	3,102	(23,430)	(26,532)	186	100+	(2)	0	(2)	Tentatively Recommended
USA-0077	Close/Consolidate Reserve and Guard Centers at IOWA AAP, Middletown, IA	(2,973)	(24,159)	(21,186)	(263)	Never	0	0	0	Tentatively Recommended
USA-0093	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0026	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USAF-004	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USAF-005	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0194	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0201	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0104	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]tively Recommended
USA-0158	[illegible] Armed Forces Reserve Center NS Newport, RI (JAST)	[illegible]	[illegible]	[illegible]	[illegible]	Never	0	0	0	Tentatively Recommended
USAF-0055	Realign NAS New Orleans AFB, LA, reactate A-10 to Whiteman AFB, MO & Barksdale AFB, LA	(4,191)	(33,730)	(29,539)	(466)	Never	0	0	0	Tentatively Recommended
USA-0193R	Close and relocate Army Guard ctrs to AASF Cheyenne, WY (FE Warren AFB)	34,313	(35,640)	(69,953)	2,427	78	(19)	0	(19)	Tentatively Recommended
USA-0180	Close/Consolidate Army NG/Res Ctrs w/ Navy Reserve Center at Armed Forces Reserve Center FT Buchanan, PR (JAST)	(4,883)	(35,896)	(31,013)	(443)	Never	0	0	0	Tentatively Recommended
USA-0136	Close/Consol Army Guard / Reserve with Navy Reserve Center at White River Junction, VT (JAST)	2,042	(36,415)	(38,457)	86	100+	0	0	0	Tentatively Recommended
USAF-0079	Close Portland Intl Airport AGS, OR, relocate KC-135, F-15s (Enclave Comms Sqdns)	7,934	(36,589)	(46,523)	473	100+	0	0	0	Tentatively Recommended
USAF-0177	Close Yeager AGS, WV	(29,499)	(38,689)	(10,200)	(2,430)	Never	0	0	0	Tentatively Recommended
	Armed Forces Reserve Center Farmingdale, NY (JAST)									
USA-0082	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center FT Sill, OK	1,421	(45,105)	(46,526)	27	100+	0	0	0	Tentatively Recommended
USA-0013	Close/ Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Newtown, CT	14,984	(48,359)	(63,343)	1,080	100+	0	0	0	Tentatively Recommended
USA-0219 V3	Close/Consolidate Army and Reserve Ctrs at Armed Forces Reserve Center Newington, NH (Pease AGS)	(583)	(54,589)	(54,006)	(138)	Never	0	0	0	Tentatively Recommended
USA-0114 V3	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Keaukaha, HI	(10,087)	(66,220)	(56,123)	(782)	Never	0	0	0	Tentatively Recommended
USA-0061	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Middletown, CT	18,705	(67,984)	(86,689)	1,203	100+	(18)	(2)	(20)	Tentatively Recommended
USA-0202 V2	Close/Consol Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center /CSMS Ayers, MA (JAST)	18,651	(82,300)	(100,951)	1,202	100+	0	0	0	Tentatively Recommended
USA-0155	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center DSC Columbus, OH	10,718	(100,388)	(111,106)	568	100+	(12)	0	(12)	Tentatively Recommended

"A payback of Never or 100+ years without a very strong argument/justification will threaten the credibility of the BRAC process."

Source:6 Apr 05, Weekly Status Reports: BRAC 2005 Discussion Topics

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Bottom Line

- The **data confirms** that the Department of Defense substantially deviated from DoD BRAC Military Value selection criteria 1 through 5 in recommending this unit for realignment

- The 130th Airlift Wing has the existing capacity to support a 12 aircraft C-130H3 unit and can provide a more effective and efficient alternative than that recommended in the BRAC Report

- **Keeping C-130s at Yeager AGS provides the DoD, community, state, and nation the highest military value at the lowest cost while performing more diverse missions**

Summary

As an Adjutant General I hold an incredible responsibility. I have to maintain combat ready forces to defend our nation at home and abroad. And without the appropriate resource mix I cannot effectively carry out that mission. It is also about the intangibles; it was not by chance that General Swartzkoff tasked the deployed 130th Airlift Wing in his left hook maneuver in Desert Storm I and the 130th C130's were selected as one of the lead airlift assets for special operation forces at the start of Iraqi Freedom.

I have served as Adjutant General for ten years and served in uniform for almost forty-three years. Never have I seen such extraordinary threats as our nation faces today. These extraordinary threats call for extraordinary people to respond and come to the defense of our Nation and our democratic way of life. The 130th Airlift Wing is an organization of the extraordinary citizen soldiers needed to respond to the threats we face.

The number one rated National Guard in the nation for readiness and one of the top rated airlift wings in the nation have responded to the call and stand ready to continue to respond to that call. This is exactly what our Nation needs to confront the threat challenges we face at home and abroad. So today we present to you information that corrects a grievous and shortsighted error on the part of the Air Force and the Department of Defense to dismantle such an extraordinary asset in our fight in the Global War on terrorism and the future threats we face.

By selecting to realign the 130th AW based on biased, inaccurate and incomplete data the DOD and /AF will lose one of the most effective Airlift Wings in the military inventory. And further more it will degrade our ability to conduct joint training for the number one rated National Guard for readiness. This is a unit that in a time of failed recruiting efforts on the part of all the services, maintains a 103% strength and a 98% retention rate. The highest recruiting and retention rates of any of the comparable C-130 airlift units. This will in fact drastically degrade our nation's true military value and capability.

The Chief of Staff of the Air Force states people are our most valuable asset. As an adjutant General with over ten years of experience deploying citizen soldiers around the world I concur with that statement. This capability combined with the BRAC Commission assessment that an economic benefit is NEVER realized from the realignment of the 130th AW brings us to only one logical conclusion. We must correct this error and preserve this valuable asset. To do otherwise would be totally contrary to the intent of the BRAC process and in fact, reduce our military effectiveness and efficiency.

To remove this valuable and experienced National Guard asset during the height of the Global War on Terrorism not only reduces overall military effectiveness but also in time, impacts on the publics resolve towards maintaining the course toward victory. The Abrams Doctrine!

Allen E. Tackett, Major General
The Adjutant General

130th Airlift Wing
Yeager Air Guard Station (AGS) Charleston, WV
BRAC Realignment Deviations
Executive Summary

Capacity Data -

Incorrect DoD capacity data used as primary basis for realignment recommendation of 130th Airlift Wing

- DoD BRAC 2005 Justification for realignment of the 130th Airlift Wing - "*The major command's capacity briefing reported Yeager Air Guard Station (AGS) cannot support more than eight* (8) *C-130s*"
    - 130th Airlift Wing actual current total capacity = Twelve (12) C-130 aircraft
        - Within existing property boundary
        - Meets all Air Force requirements
    - Can expand within existing property boundary to base 16 C-130s for $2.5 - $3 million
- 130th Airlift Wing is relevant to future DoD force structure
- BRAC Law states Military Value will be used as the primary basis for realignment and closure recommendations

DoD BRAC Military Value Criterion #1 -

Realignment recommendation creates inefficiencies counter to stated AF goal of basing aircraft of like configuration, or block, together

- Yeager is currently converting from C-130H2s to C-130H3s
- Many differences between C-130H2s from Pittsburgh ARS and C-130H3s from Yeager AGS
- Alternative recommendation that meets AF goal is to base 12 C-130H2 aircraft at Pope/Ft. Bragg, and 12 C-130H3 aircraft at Yeager

BRAC data call process did not accurately assess 130AW joint and homeland defense capability or disaster response capability

- 130th performs Joint Airborne/Air Transportability Training at Pope/Ft. Bragg
- 130 AW C-130s provide rapid transportation to joint WV National Guard weapons of mass destruction response teams
    - Centrally located among area of responsibility which includes many major metropolitan areas including Washington, D.C.
- 130 AW assets utilized in 16 FEMA declared disasters, 10 non-FEMA declared disasters over last 9 years

DoD BRAC Military Value Criterion #2 -

Data results demonstrate bias in favor of large active duty installations

- 130AW fully performs all missions with minimal excess infrastructure
- Can park and support 12 C-130 aircraft with existing infrastructure

High Value - Low Cost - Diverse Missions

- Data confirms other units gaining aircraft have excess infrastructure beyond that needed to perform mission resulting in higher costs
- 130AW property leased at cost of $1.00 per year through 2052
- Yeager AGS centrally located among 26,000 square miles of open low altitude tactical navigation training airspace

DoD BRAC Military Value Criterion #3 -

Potential surge capacity of 130 AW not accurate

- Incorrect capacity data used for 130 AW at beginning of BRAC process invalidates calculated surge capacity
- Revised surge capacity analysis for 130AW should consider Yeager AGS current ability to park 12 C-130 aircraft and ability to use adjacent taxiway and runway at no cost

DoD BRAC Military Value Criterion #4 -

Quantitative and qualitative cost factors for 130AW were not considered in realignment recommendation.

- Compared to other ANG units gaining additional C-130 aircraft, 130 AW has highest personnel strength, 2nd highest retention by 0.1%, 2nd highest C-130H2 mission capability rate
- Compared to other ANG units gaining additional C-130 aircraft, 130 AW has lowest Operations and Maintenance costs, lowest cost per flying hour, and 2nd lowest cost of living
- 130 AW realignment will result in higher costs to DoD and likely loss of experienced combat veteran personnel

DoD BRAC Criterion #5 –

DoD BRAC recommendations should result in savings in installation and personnel costs

- 130AW realignment will result in higher costs to DoD and has a payback period of NEVER

Summary -

- Incorrect capacity data used at beginning of BRAC process resulted in elimination of 130AW from consideration in future force structure
- Correct capacity data provided to BRAC Commission to reject DoD realignment recommendation
    - 130AW can park and support 12 C-130 aircraft right now
- 130AW scored higher than several units gaining aircraft in 3 of the 4 military value criteria
- Once considered as potential receiving location using military value criteria in accordance with BRAC law, data confirms 130 AW provides greater value at lower cost than other units scheduled to receive additional aircraft through BRAC

BRAC Realignment Errors for the 130th Airlift Wing

In response to the 2005 Base Realignment and Closure (BRAC) report, the 130th Airlift Wing (AW) of Charleston, WV takes exception to the basis and application of criteria that label the wing an extraneous military expense. In essence, the Pentagon collected inaccurate data and measured that data to criteria that were biased toward large, expensive military bases. The 130th Airlift Wing is cost effective, provides a more diverse mission than similar active duty wings, and maintains an infrastructure that is prepared to serve the United States and the total force for decades to come.

All BRAC documents emphasize military value—both quantitative and qualitative—as the primary factor in all recommendations. Quantitatively, capacity data are the primary measure of military value by BRAC researchers. In the case of Yeager Air Guard Station (AGS), the data collected indicated a maximum capacity of 8 C-130s and suggested land acquisition would be required for expansion. The 130th has proven that it can park 12 aircraft on its existing ramp space while complying with all Air Force regulation regarding aircraft parking. With an investment of $2.5 to $3 million, the 130th can accommodate 16 C-130s within its current land boundaries. Since initial data indicated no means for expansion, BRAC researchers ignored this relatively inexpensive expansion cost. This numerical error caused a misanalysis that led the researchers to ignore the low costs of expansion at Yeager AGS and write the Air Wing off as an unreasonable expense.

In addition to the erroneous capacity reports for Yeager AGS, the BRAC researchers did not consider the savings from a part-time force and shared civilian facilities. Airmen of the 130th AW have tremendous experience and serve only when needed, thus reducing the cost of maintaining an active force. Many bring decades of experience to the force and are eager to serve whenever their nation calls them. Beyond personnel savings, the Yeager Airport's civilian terminal absorbs the cost of 24-hour Air Traffic Control—a service provided at the military's expense on an active duty Air Force base. Furthermore, runway operations including maintenance and snow removal are provided at no cost to the military. Even though Yeager AGS uses leased property, the cost for this lease is minimal—$1 per year in a 50 year lease renewable in 2052.

The BRAC process barely considered the value of the Air National Guard to perform a dual role in homeland and wartime operations. The 130th often provides relief to victims of natural disaster and is prepared to mobilize with local response teams for Weapons of Mass Destruction (WMD) emergencies throughout FEMA regions III and V, including: Washington D.C., Chicago, Philadelphia, Baltimore. The location of Charleston, WV is central to these likely terrorist targets and provides a safe, accessible base from which to stage and transport disaster response assets. The infrastructure on the ground is ample, and the service record of the 130th proves its readiness to meet these challenges effectively. Placing a low weight on this criterion leads to an assessment of military value that ignores a great part of the wing's worth.

The 130th is also a value in joint operations. Part of the Air Force's justification for moving resources to Pope Air Force Base (AFB) is the opportunity for joint operations. The 130th regularly operates with the WV Army National Guard and trains with the 18th Airborne Corps and the 82nd Airborne Division—clear examples of joint operations already underway. From Yeager AGS, the 45 minute flight to Fort Bragg/Pope AFB allows multiple lifts, airdrop of 200-300 soldiers, and multiple dirt LZ landings. Furthermore, the proximity to Fort Bragg increases the C-130 inventory available to support the Joint Airborne/Air Transportability Training mission there without incurring a high cost of transportation.

The current BRAC report, as it stands, will create inefficiencies at Fort Bragg/Pope AFB. No data released to date indicates that the BRAC researchers considered the 130th's current transition from C-130H2 to C-130H3 aircraft from the 167th AW in Martinsburg, WV. Contrary to the AF objective of basing aircraft of like configuration together, joining 130th AW's C-130H3 with Pittsburg Air Reserve Station's C-130H2 aircraft at Pope AFB will lead to unforeseen complications, as the two aircraft models have considerable configuration differences. One alternative proposal would be to place the C-130H2 aircraft currently being reassigned from the 130th AW at Pope AFB, then create a 12 aircraft C-130H3 wing at Yeager AGS with all of the C-130H3 aircraft at Martinsburg.

The scoring system for infrastructure, as noted in the Air Force Base Closure Executive Group meeting minutes, is skewed toward large active duty bases. This scoring matrix, which awards no points for runway lengths below 7,000 feet and ramp areas below 137,000 square yards, encourages infrastructure larger than necessary for the C-130 mission—a wasteful allocation of resources. According the scoring matrix, this value counts for 41.5 percent of the overall unit value; the heavy emphasis on this physical infrastructure minimizes focus in other areas like mission capable rates. Most important, the 130th AW accomplishes its mission and can easily expand without the excess burden of maintaining over 157,000 square yards of ramp space and 7,000 feet of runway. Even during surges in operation, the 130th can adapt to accommodate more aircraft than reported, as evidenced by parking 12 aircraft on a ramp reported to hold only eight.

Apart from the infrastructure on the ground, the airspace surrounding Yeager Airport is a prime location for tactical airlift training. The central location of the 130th offers 26,000 square miles of open, unrestricted low level training airspace. Civilian traffic over the area is light; there are no alert, danger, prohibited, restricted, or warning areas; and there are 21 military training routes through West Virginia. For flying missions, few bases near the East Coast can offer the training space available to the 130th.

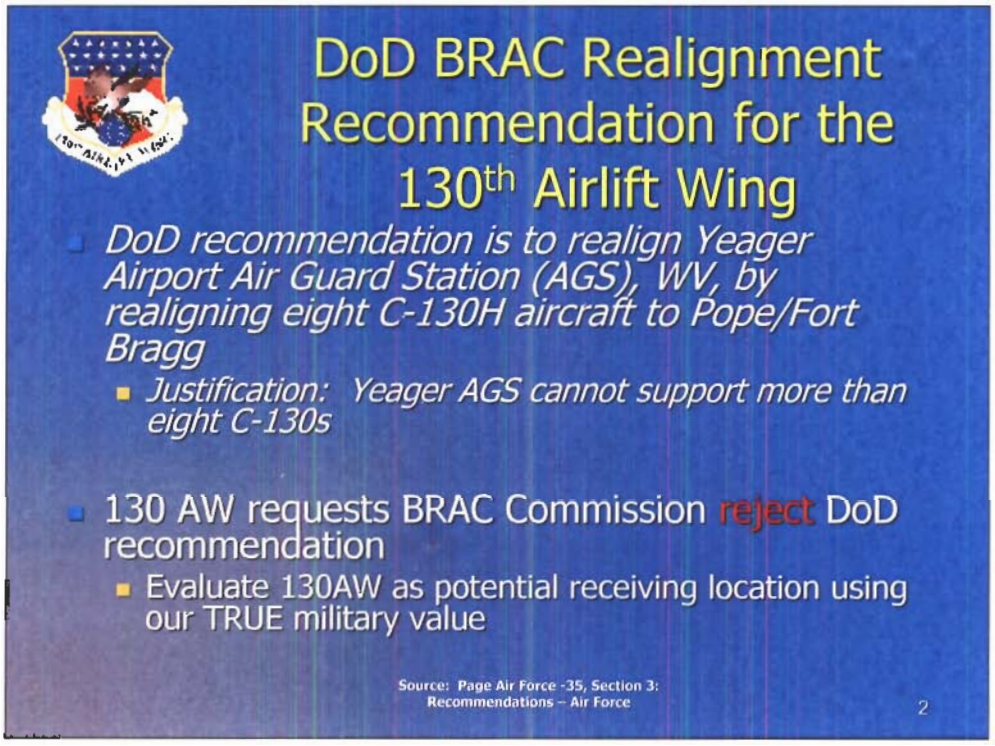
Finally, the BRAC analysis weighted operations and manpower implications at only 2.5 percent of the overall military value! This low value exists despite the priority announced in Air Force BRAC Strategy 2005 to retain experienced and skilled airmen. In this area, the 130th Airlift wing excels. When compared with C-130 units who would gain aircraft through the BRAC process, the 130th scores highest in overall strength, even

though it draws its people from a smaller population base. Compared to the same units, the 130th ranks in a close 2nd in retention. With no air bases in the surrounding area, the Air Force will lose the personnel assets at the 130th.

In conclusion, the 130th Airlift Wing effectively uses the resources of the Department of Defense and the United States Air Force. The location, though smaller than an active duty base, has adequate infrastructure to support the future demands of the total force and could easily accommodate a component of twelve to sixteen C-130s without wasting government resources. With less operating expense than most comparable units, the 130th executes its mission in excellence and exceeds standards of performance, inspection, and readiness. Most importantly, the people of the 130th Airlift wing are highly skilled and eager to continue serving, but are rooted in the West Virginia area. Without the flying mission at Yeager AGS, these critical resources could be lost. The 130th Airlift Wing is a military value, and realignment without proper consideration could cost the Air Force more than it may ever save.

PRESENTATION NOTES PAGES

W.VA. AIR NATIONAL GUARD
DEPARTMENT OF DEFENSE
DEPARTMENT OF THE AIR FORCE
AIR NATIONAL GUARD
STATE OF WEST VIRGINIA



The DoD recommended that the 130th Airlift Wing be realigned by relocating its 8 C-130 aircraft to Pope/Fort Bragg. The only justification provided for this realignment was that Yeager cannot support more than 8 C-130s. This realignment recommendation is based on incorrect information and the 130th Airlift Wing requests that the BRAC Commission reject this DoD recommendation and instead consider the 130th Airlift Wing as a potential receiving location using our TRUE military value which is presented in this briefing.

Realign Yeager Airport Air Guard Station (AGS), WV, by realigning eight C-130H aircraft to Pope/Fort Bragg to form a 16 aircraft Air Force Reserve/active duty associate unit, and by relocating flying-related expeditionary combat support (ECS) to Eastern West Virginia Regional Airport/Shepherd Field AGS (aerial port and fire fighters).

The major command's capacity briefing reported Pittsburgh ARS land constraints prevented the installation from hosting more than 10 C-130 aircraft and Yeager AGS cannot support more than eight C-130s. Careful analysis of mission capability indicates that it is more appropriate to robust the proposed airlift mission at Fort Bragg to an optimal 16 aircraft C-130 squadron, which provides greater military value and offers unique opportunities for Jointness.

130th Airlift Wing
Yeager Air Guard Station (AGS)
Charleston, WV

Major General Allen Tackett
Colonel Tim Frye
Major Kevin Ray
28 June 2005

3

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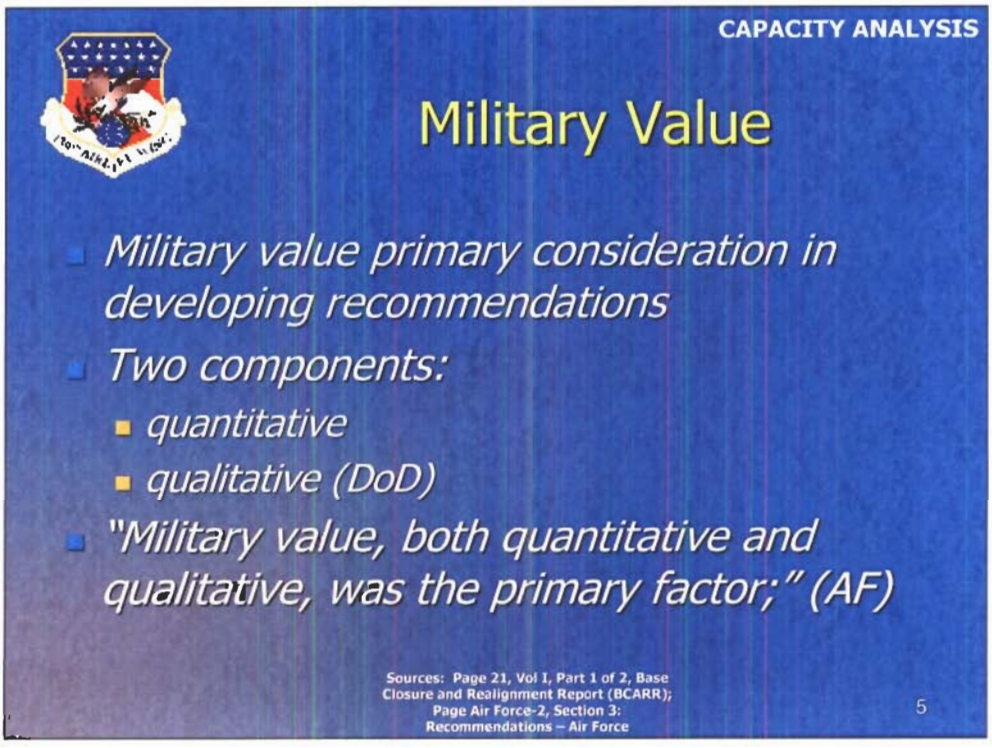
(FOUO slides are labeled)

4



All of the official DoD BRAC documents emphasize how Military Value was the primary consideration in developing the closure and realignment recommendations. These documents state that there is both a quantitative component as well as a qualitative component to military value, and the Air Force states that these were the primary factors in making their recommendations.

As required by statute, the military value of an installation or activity was the primary consideration in developing the Department's recommendations for base realignments and closures. The Department determined that military value had two components: a quantitative component and a qualitative component. The qualitative component is the exercise of military judgment and experience to ensure rational application of the criteria. This component is discussed further in the context of scenario analysis. The quantitative component, explained in greater detail below, assigns attributes, metrics, and weights to the selection criteria to arrive at a relative scoring of facilities within assigned functions.

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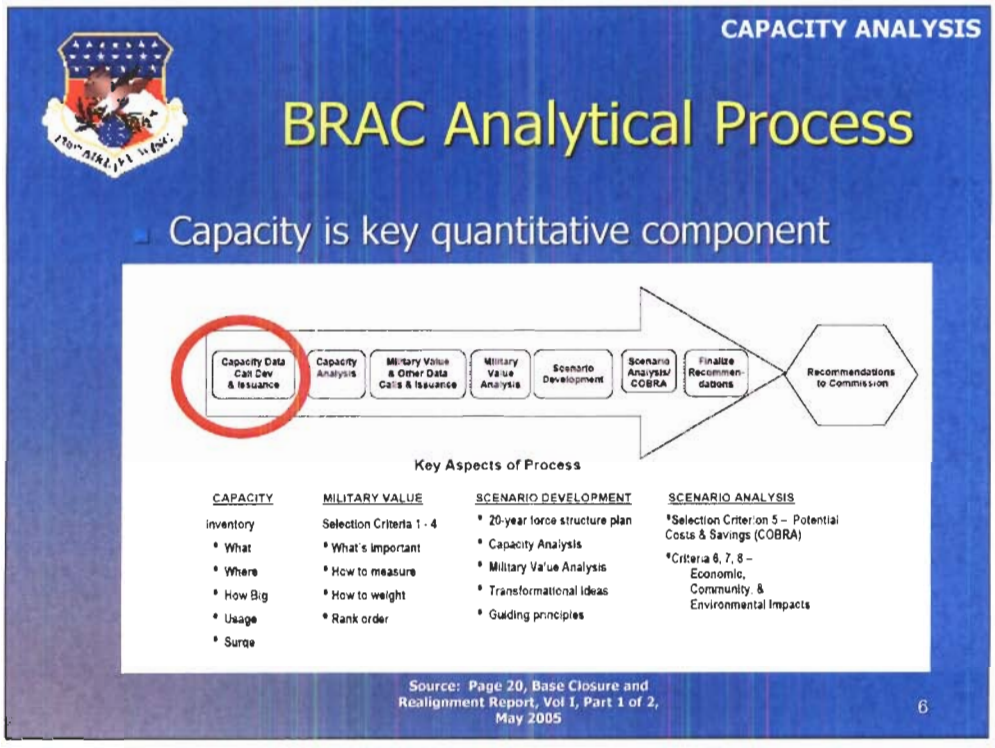


The KEY quantitative component used as the primary building block for the entire BRAC process is CAPACITY DATA. Therefore, accurate capacity data is KEY to obtaining accurate analysis and eventually valid recommendations.

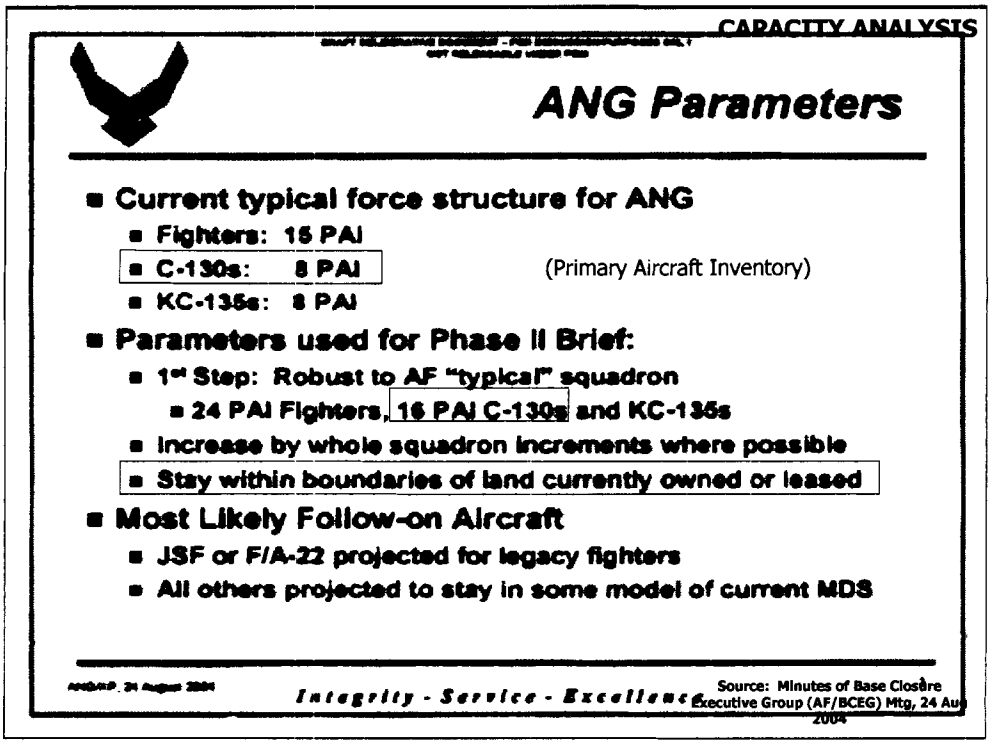
Capacity Analysis

To maximize warfighting capabilities and the efficiency of the current domestic infrastructure, each Military Department and JCSG began its analysis by determining the capacity of the installations and activities within its purview. The intent of this analysis was to develop a comprehensive inventory based upon certified data that included both physical capacity (buildings, runways, maneuver acres, etc.) and operational capacity (workload or throughput). Each proponent prepared a comprehensive capacity data call to meet its requirements. The groups' task was to determine which bases and sites performed each function, how the physical and operational capacity at those installations was being used, whether surge capabilities would meet contingency needs, and the maximum potential capacity at each location. Once the data call questions were completed, they were forwarded to the field by the Military Departments and Defense Agencies. Each group evaluated capacity analysis responses to identify opportunities for efficiency and effectiveness.

The end results that the Air Force hoped to achieve are outlined in three key elements of the AF BRAC Strategy. We'll break down each element separately throughout this briefing. The first element in the Air Force strategy is that the Air Force wanted to consolidate its declining fleet of aircraft into larger units – at installations of high military value.

Why? Because the Air Force claims that small squadrons are inefficient. It was determined that for mobility aircraft, the ideal active duty squadron size is 16 aircraft while the ideal size for the reserve component is 12 aircraft.

The Air Force recommendations in this report maximize warfighting capability by fundamentally reshaping the Service, effectively consolidating older weapons systems into fewer, larger squadrons. Small squadrons are inefficient; these more optimally sized units are more efficient and more effective operationally. The optimal size for an active duty fighter squadron is 24 aircraft. For stand-alone reserve component units, 18 aircraft is an acceptable fit because reserve component organizations generally have higher experience levels and recruit locally to keep units manned. For most mobility aircraft either 16 or 12 is best depending on the aircraft or service component. Again, the experience of the reserve components makes 12 acceptable.



This is the data provided by the Air National Guard for use in the Air Force capacity analysis to determine an installations capability of supporting a squadron of these sizes.

You can see that the current typical ANG C-130 squadron is based on 8 aircraft, but the capacity analysis was based on a future squadron size of 16 aircraft. One of the key parameters for the analysis was the capability to expand squadron size while still remaining within the boundaries of land currently owned or leased.

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ANG Command Summary: C-130

Base	MDS	Total PAI	Parking Spaces Total	Parking Spaces Unused	Est $ (M) to Robust to 16 PAI	Est $ (M) to Add 1 Sqdn	Est $ (M) to Add 2nd Sqdn	Total Estimate of Cost
Will Rogers, OK	C-130	8	12	4	31.9	Land		31.9
Yeager, WV	C-130	8	8	0	Land			

ANG/XP, 24 August 2004

Integrity - Service - Excellence

Source: Minutes of Base Closure Executive Group (AF/BCEG) Mtg, 24 Aug 2004

Here you see the actual data provided by the ANG for Yeager AGS. It states that Yeager currently has 8 C-130 aircraft assigned with 8 total parking spaces and 0 unused parking spaces. An estimated cost to expand to a full squadron of 16 C-130s is not calculated due to land restrictions.

CAPACITY ANALYSIS

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ANG Command Summary: C-130

Base	MDS	Total PAI	Parking Spaces Total	Parking Spaces Unused	Est $ (M) to Robust to 16 PAI	Est $ (M) to Add 1 Sqdn	Est $ (M) to Add 2nd Sqdn	Total Estimate of Cost
Will Rogers, OK	C-130	8	12	4	31.0	Land		31.0
Yeager, WV	C-130	8	~~[illegible]~~	0	Land			

12

ANG/XP, 24 August 2004

Integrity - Service - Excellence

Source: Minutes of Base Closure Executive Group (AF/BCEG) Mtg, 24 Aug 2004

The data provided by the Air National Guard regarding the parking capacity of the 130th Airlift Wing is not correct. The correct data is that we have 12 parking spaces with 4 unused and no land restriction to expanding to a 16 aircraft squadron.

Here you can see 12 C-130 aircraft on the ramp at Yeager AGS. We can park these aircraft within our existing property boundary and meet all Air Force requirements pertaining to parking aircraft.

CAPACITY ANALYSIS

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Yeager, WV Overview

Charleston IAP

As of	30 Sep 2005	30 Sep 2011
Assigned Weapon System Type(s) (MDS)	C-130	C-130
Total PAA	8	8
# Flying Squadrons	1	1
Total Available Aircraft Parking spaces	8	8
Unused Aircraft Parking Spaces	0	0

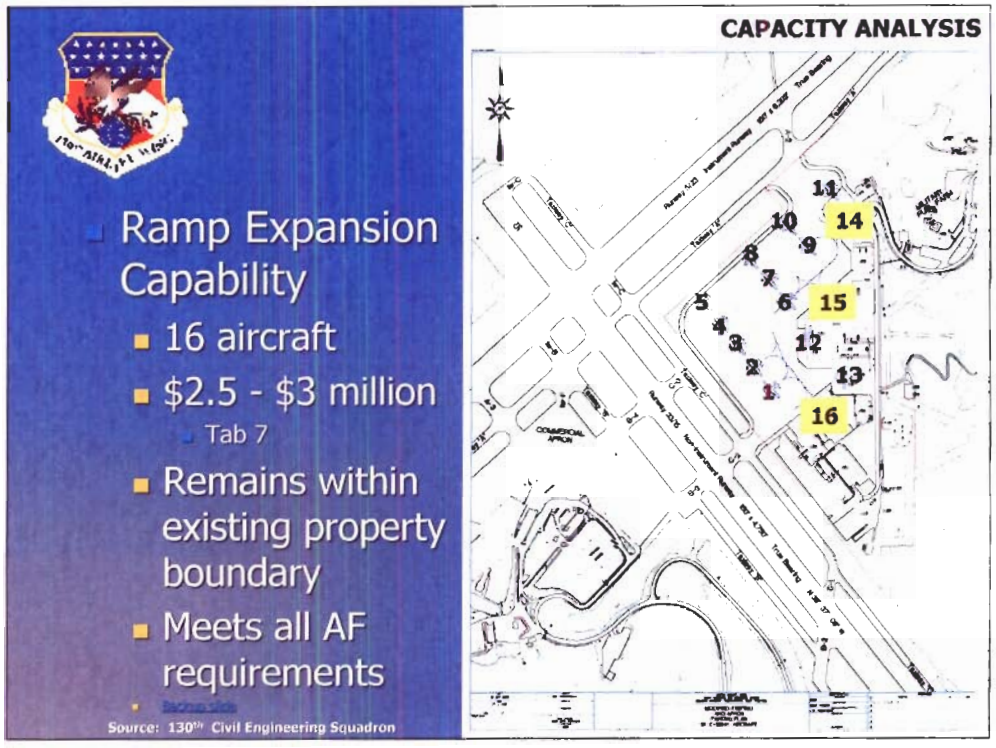
Template used	C-130
Standard PAA per squadron	16

ANG/XP, 24 August 2004

Integrity - Service - Excellence

Source: Minutes of Base Closure Executive Group (AF/BCEG) Mtg, 24 Aug 2004

In addition to this, the data provided by the Air National Guard stated that Yeager, WV did not have the capability to expand beyond those 8 parking spaces. Again this was based on a standard squadron size of 16 aircraft. This data is incorrect as well.



Here you can see the ramp expansion capability available at Yeager AGS. The 130th Airlift Wing can park 16 C-130 aircraft with the addition of 3 additional parking spaces at the estimated cost of less than 3 million dollars (based upon Civil Engineering estimate provided in TAB 7). We can accommodate these additional aircraft while still remaining within our existing property boundary and meeting all AF requirements for aircraft parking.

CAPACITY ANALYSIS

Installation Sort

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MAJCOM	Installation	MDS	PAA Used	Total Acft #	Sqdn Equiv in Place	Sqdn 1	Sqdn 2	Sqdn 3	Sqdn 4	Sqdn 5	Sqdn 6	Total Capacity (Squadrons)
ANG	Whiteman	AH-64	7	7	1.0	X						1
ACC	Whiteman	B-2	8	20	2.5	X	X					2.5
ANG	Whiteman	OH-58	7	10	1.4	X						1.4
ACC	Whiteman	T-38	24	14	0.6							0.6
ANG	Will Rogers, OK	C-130	16	8	0.5	$31.0						1
ANG	Willow Grove	A-10	24	15	0.6	$0.0						1
AFRC	Willow Grove	C-130	16	8	0.5	$55.3						1
AFMC	Wright Patt	C-17	12	0	0.0	$246.6						1
AMC	Wright Patt	C-21	12	13	1.1	X						1.1
AFRC	Wright Patt	C-5	12	11	0.9	$5.6						1
ANG	Yeager, WV	C-130	16	8	0.5							0.5
AFRC	Youngstown	C-130	16	12	0.8	$0.4						1

Squadron 1 thru 6: X signifies a squadron currently (2006) in place.
A box with a dollar value represents the ability to add a full squadron at that cost (in $Millions).
**** MAJCOMs were directed to provided estimates for adding up to 2 squadrons at installations.***

- MAJCOM – Major Command
- MDS – Mission Design Series
- PAA – Primary Aircraft Authorization

Source: Tab 2. Mil Value and Capacity Supporting Information USAF 0122V3 (316.2)

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This is the Air Force Installation Capacity Summary data that the Air Force used in making the realignment recommendation for Yeager AGS. It is a consolidation of data provided by the Air Force Major Commands during a series of presentations in August of 2004 and includes the data that the ANG provided regarding Yeager.

Here is the capacity data listed for Yeager AGS. It shows that for a C-130 squadron, a total of 16 aircraft was used as the baseline number to complete 1 squadron. 8 C-130 aircraft are currently based at Yeager AGS. Therefore we have 0.5 squadrons in place. The blocks to the right are the estimated costs for an installation to increase in size to a full squadron. As you can see there is no cost estimate for Yeager due to the ANG capacity data that stated we have land constraints that prohibit accepting more aircraft.

Air Force Installation Capacity Summary

The installation capacity summary is a consolidation of data provided by the Air Force MAJCOM through a series of presentations in August of 2004. The goal of the summary was to capture and visually display the MAJCOM presented information for reference in a smaller, consolidated format. Below are descriptions of the associated columns used in the spreadsheet:

1. ***MDS :*** *Mission Design Series represents aircraft operating at the listed installation*
2. ***Blk / Model:*** *Reflects, where necessary, the specific Block of a given MDS operating at the location*
3. ***PAA Used:*** *Primary Aircraft Authorization identifies the optimal number aircraft per MDS for a squadron based on the Air Force's White Paper on Organizational Principles*
4. ***Total Acft #:*** *The total number of aircraft at the location (per MDS) based on MAJCOM Capacity briefings Aug 2004*

CAPACITY ANALYSIS

Installation Sort

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ANG	Whiteman	AH-64	7	7	1.0	X						1
ACC	Whiteman	B-2	8	20	2.5	X	X					2.5
ANG	Whiteman	OH-58	7	10	1.4	X						1.4
ACC	Whiteman	T-38	24	14	0.6							0.6
ANG	Will Rogers, OK	C-130	16	8	0.5	$31.0						1
ANG	Willow Grove	A-10	24	15	0.6	$0.0						1
AFRC	Willow Grove	C-130	16	8	0.5	$55.3						1
AFMC	Wright Patt	C-17	12	0	0.0	$246.8						1
AMC	Wright Patt	C-21	12	13	1.1	X						1.1
AFRC	Wright Patt	C-5	12	11	0.9	$5.0						1
ANG	Yeager, WV	C-130	16	8	0.5							0.5
AFRC	Youngstown	C-130	16	12	0.8	$0.4						1

A shaded box represents a partial squadron (less than 1) that cannot be expanded.

- This data is incorrect!

Source: Tab 2. Mil Value and Capacity Supporting Information USAF 0122V3 (316.2)

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The notes indicate that a shaded box in this section means that a partial squadron is present and this location CANNOT expand.

As we have already shown, this data is INCORRECT.

---

*5. **Squadron Equivalent In Place:** The number of equivalent squadrons at an installation determined by dividing the Total Aircraft by the PAA Used*

*6. **Squadron 1 thru 6:** X signifies a squadron currently (2006) in place. A shaded box represents a partial squadron (less than 1) than cannot be expanded. A box with a dollar value represents the ability to add a full squadron at that cost (in $Millions). ** MAJCOMs were directed to provided estimates for adding up to 2 squadrons at installations.*

*7. **Total Capacity:** Is the total "Theoretical" capacity based on current aircraft capacity in squadrons as well as capacity that could be available (at a cost) up to 2 additional squadrons.*

CAPACITY ANALYSIS

Installation Sort

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AFRC	Wright Patt	C-5	12	11	0.9	$5.0						1
ANG	Yeager, WV	C-130	16	8	0.5							0.5
AFRC	Youngstown	C-130	16	12	0.8	$0.4						1

•$ 2.5 - $3 million to add 8 aircraft for a full squadron of 16 aircraft

Source: Tab 2. Mil Value and Capacity Supporting Information USAF 0122V3 (316.2)

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Therefore, what should be in this block is the estimated cost for Yeager to expand to a full squadron of 16 C-130 aircraft – approximately $2.5 - $3 million dollars.

CAPACITY ANALYSIS

Installation Sort

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AFMC	Wright Patt	C-17	12	0	0.0	$246.6						1
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ANG	Yeager, WV	C-130	16	8	0.5							0.5
AFRC	Youngstown	C-130	16	12	0.8	$0.4						1

7. Total Capacity: Is the total "Theoretical" capacity based on current aircraft capacity in squadrons as well as capacity that could be available (at a cost) up to 2 additional squadrons.

- Theoretical capacity data for 130 AW not calculated
  - 130 AW total capacity is 1.5 Squadrons (24 aircraft)

Source: Tab 2. Mil Value and Capacity Supporting Information USAF 0122V3 (316.2)

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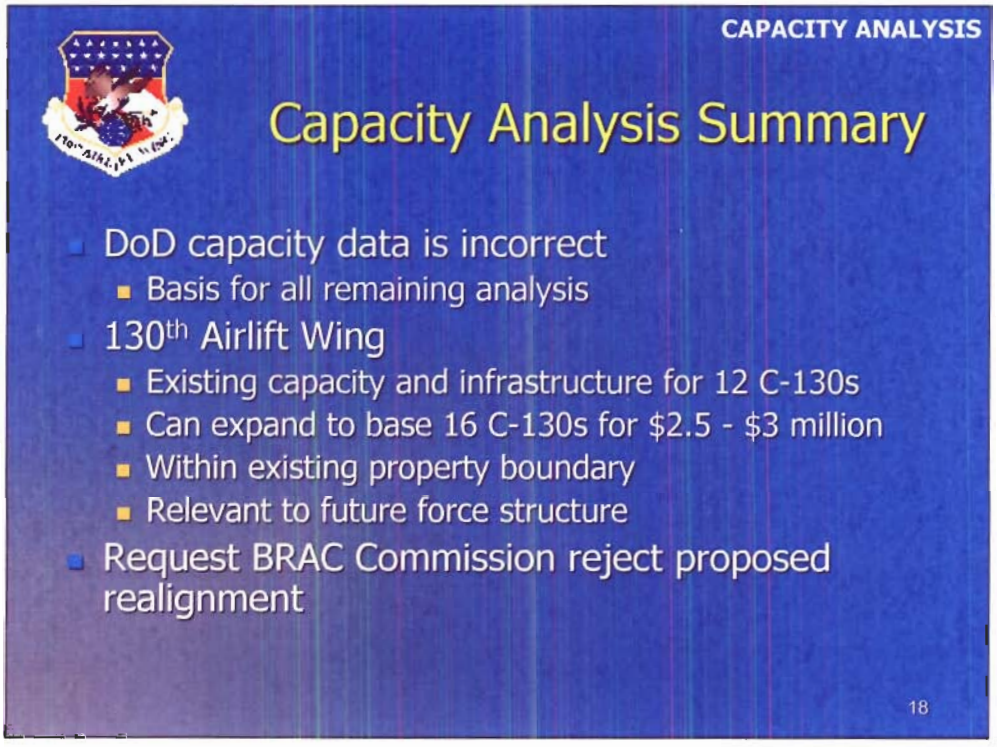
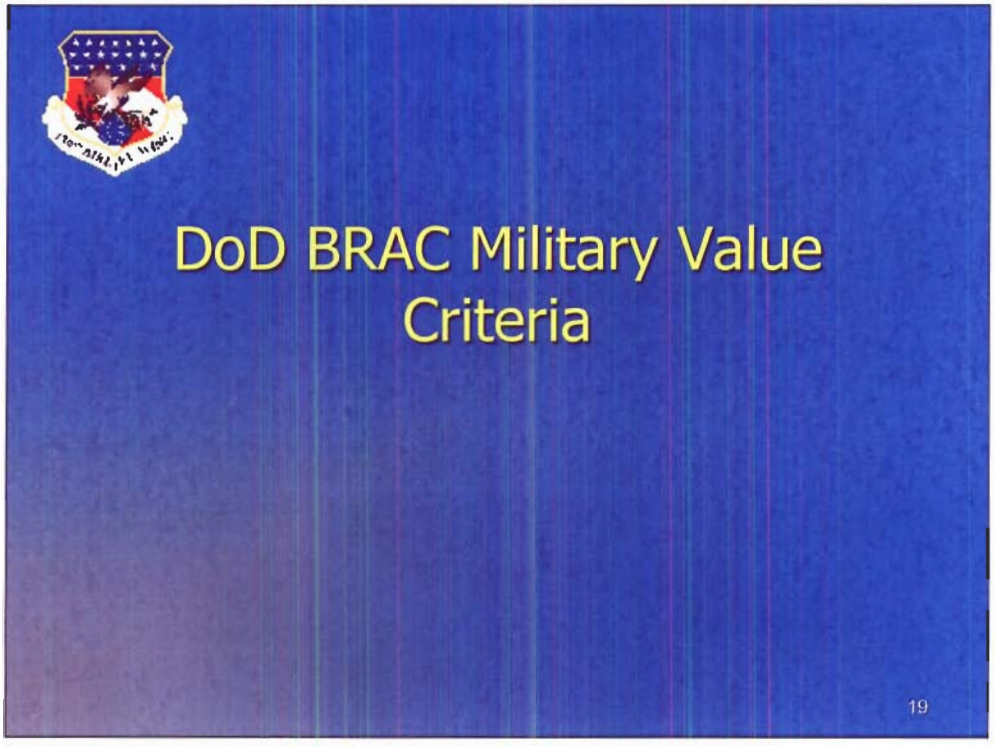
Backup slide

Based on this incorrect data, the column at the far right shows the Total Capacity for Yeager as 0.5 squadrons. The true maximum theoretical capacity of Yeager based on plans that we have already developed is actually 24 C-130 aircraft, or 1.5 squadrons.



We have proven to you today that the capacity data used to evaluate the 130th Airlift Wing is not accurate. All follow-on analysis of the 130th Airlift Wing was based on this inaccurate data. The fact is that the 130th Airlift Wing has the existing capacity and infrastructure for 12 C-130 aircraft. We can expand to base 16 C-130 aircraft for approximately $2.5 - $3 million and we can do all of this while remaining within our existing property boundary and meet all AF requirements. Therefore, Yeager AGS and the 130th Airlift Wing ARE relevant to the future force structure.

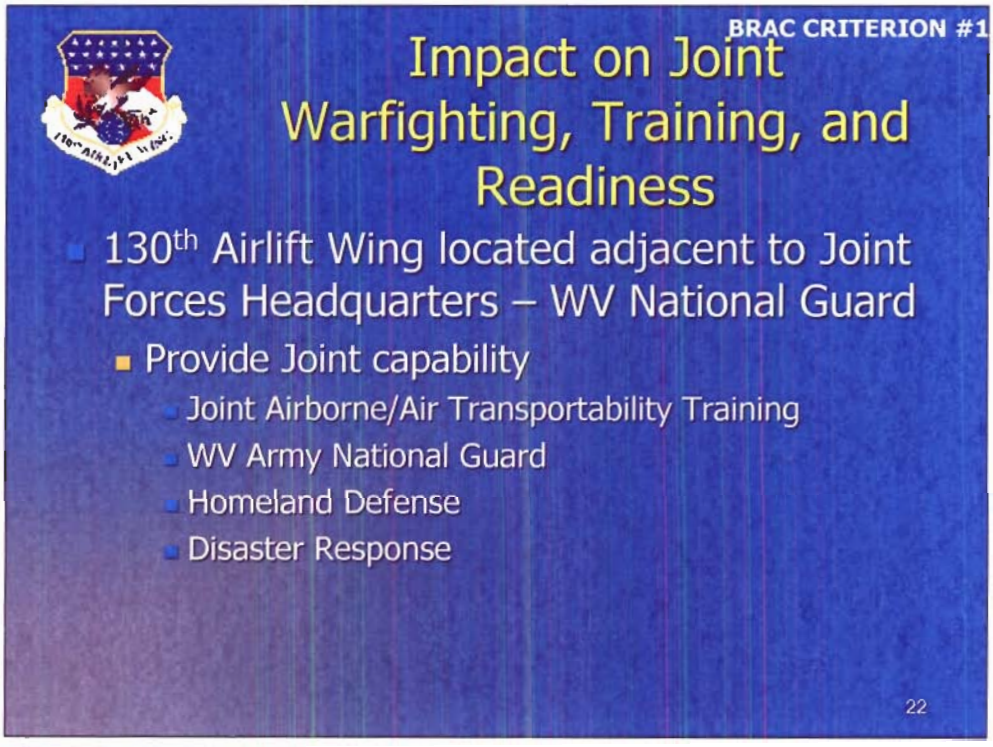
Based upon this incorrect capacity data used, we respectfully request that the Commission reject the DoD recommendation to realign the 130th Airlift Wing.



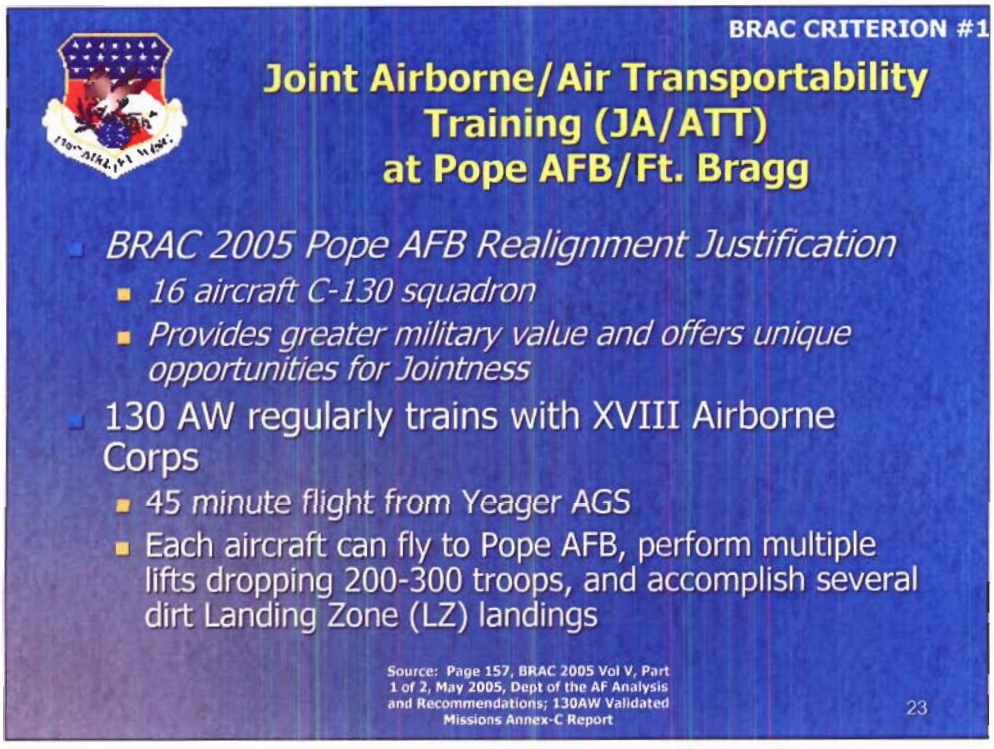
Since the capacity data provided regarding the 130th Airlift Wing essentially eliminated us from consideration at the beginning of the BRAC process, we feel that our true military value was never considered. Now we will examine each of the 4 DoD BRAC Military Value criteria which are to be used as the PRIMARY basis in BRAC recommendations.

When we look at the quantitative Mission Compatibility Index scores for the 130th Airlift Wing you'll see that a score was provided for each of the 4 criteria used to quantify military value. Criteria 1 & 2 are significantly weighted and result in being the primary determining factors in the overall score. While we scored higher in 3 of the 4 criteria than other units gaining additional aircraft, our score for criterion 2 was actually quite low. Due to weighted value of criterion 2 this resulted in our overall MCI score also being quite low. Since this criterion had such a negative impact on our overall military value score we decided to take a very close look at it. This resulted in corrected data improving our score to 22.19.

1. The current and future mission capabilities and the impact on operational readiness of the total force of the Department of Defense, including the impact on joint warfighting, training, and readiness.



In addition to being located adjacent to the Joint Forces Headquarters for the WV National Guard, we provide significant joint capability that was not considered in any data calls.



Part of the justification that the Air Force provides for this realignment is that basing aircraft at Pope offers unique opportunities for Jointness.

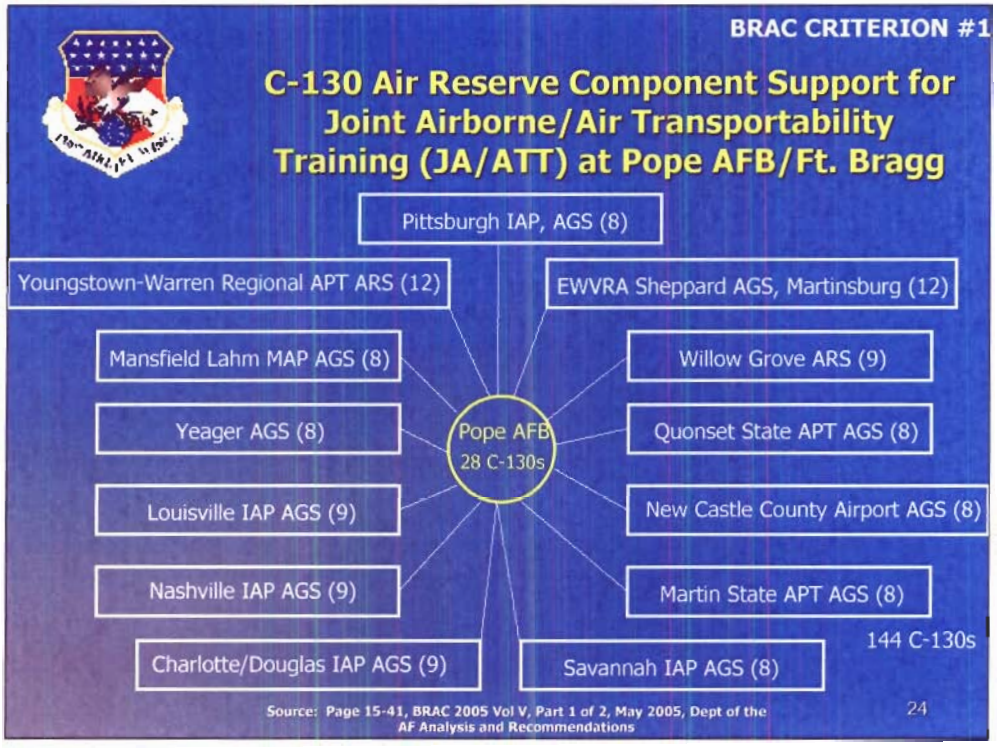
Our disconnect with this is we also conduct this same unique joint training with the 18th Airborne Corps and 82nd Airborne Division. Our unit regularly makes the 45 minute flight to Pope AFB picking up cargo and paratroopers to conduct training. On any given day any of our aircraft can fly to Pope AFB, perform multiple lifts, drop 200-300 paratroopers, and perform several dirt LZ landings.

Source:

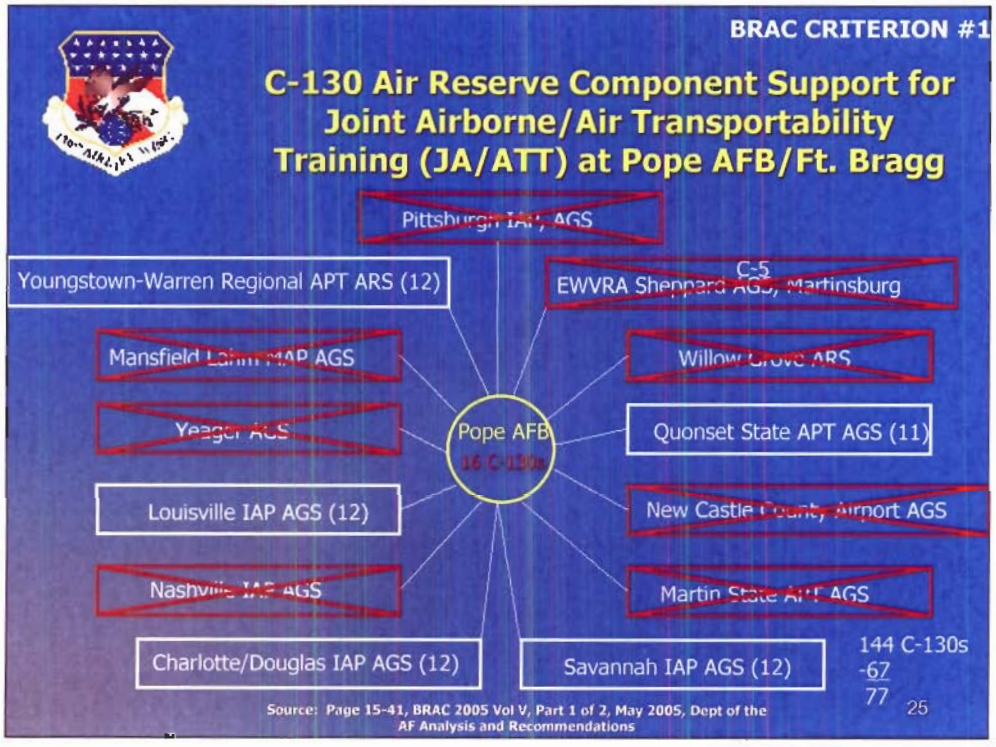
130 AW Validated Missions Annex-C Report

JA/ATT website - https://private.amc.af.mil/JAATT

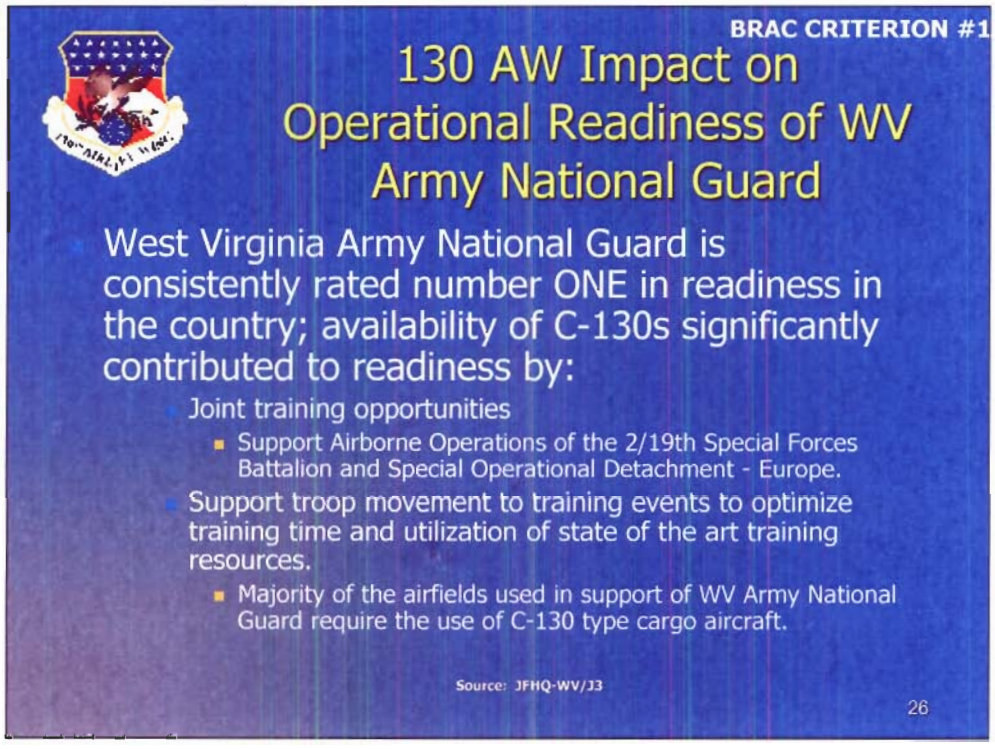
130 AW averaged 1 aircraft and 8.3 hours of support to Pope AFB monthly from Jun 2002 – Feb 2005.



And when you consider that Pope AFB currently has 28 C-130s and still required the additional support of Air Reserve Component C-130s throughout the eastern United States, the question arises regarding the potential impact of the proposed realignments.



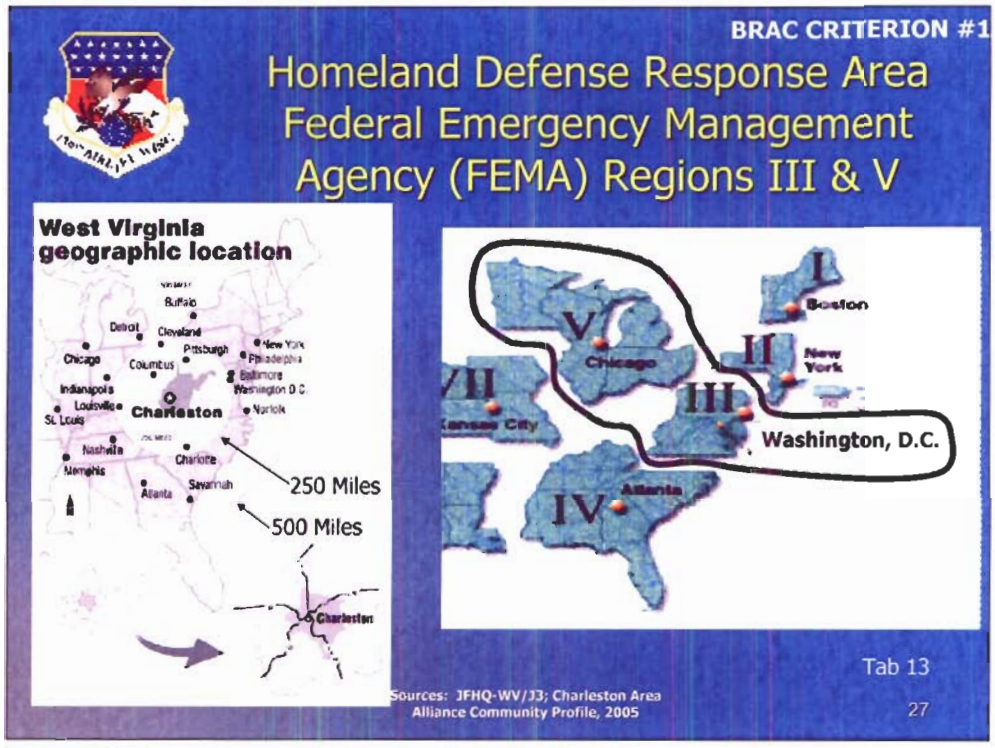
In addition to all of the realignment impacts shown, Pope AFB is also reducing the number C-130s that it has to support the JA/ATT mission from 28 to 16. The net loss of C-130 support to the JA/ATT mission at Fort Bragg is 67 aircraft, leaving a total of 77 available compared to the 144 aircraft before. By transferring our H2 aircraft to Pope and providing 12 H3 aircraft to Yeager it would help to reduce the impact of these realignments on this unique joint mission.



The 130th Airlift Wing also performs unique joint missions with the WV Army National Guard that would be negatively impacted through this realignment. The WV Army National Guard is currently rated number one in readiness and has been at the top of readiness for the last 8 years. The C-130s at Yeager played a significant part in achieving that by providing a training platform for Special Operations units, and by supporting troop movements to and from training sites thereby saving significant time normally lost during ground transportation. Keep in mind that many of the airfields used in support of those Joint operations required the use of C-130 type cargo aircraft due to their limited size.

Air Support for Airborne Operations

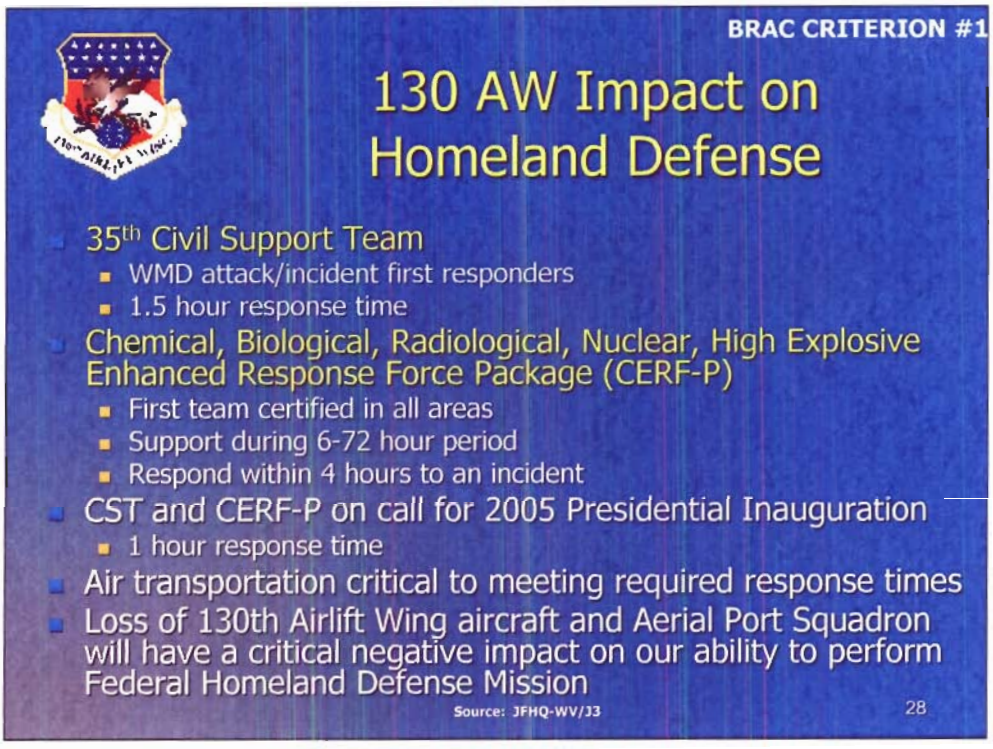
- Parachute Requirements
  - HALO Jumps to remain qualified - 6 jumps per year
  - Static Line jumps to remain qualified - 6 jumps per year
  - Equipment Drops - 4 drops per year
  - Develop Air movement plans
- Drop Zones in West Virginia
  - Four approved Drop Zones



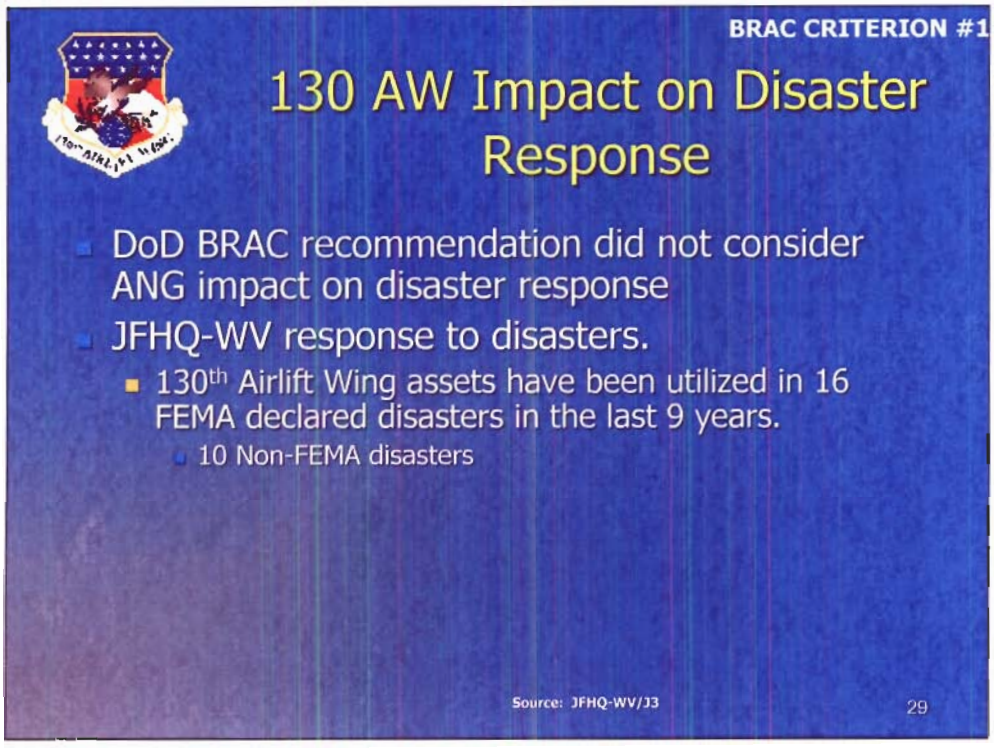
Another critical "Joint" mission that the 130th Airlift Wing performs is Homeland Defense. Although BRAC guidance required consideration of civil support to the nation, the Air Force seemed to only focus on the Air National Guard Air Defense mission when making their analysis and recommendations. Therefore the 130th's contribution to Civil Support was not considered when determining our military value.

The joint forces of the WV National Guard have Federal Homeland Defense obligations (outlined in written agreements with appropriate agencies) that encompass a significant geographic area. Charleston, WV is strategically located at the center of many major metropolitan areas in the eastern United States. Many of these areas are considered likely targets for potential future terrorist attacks. Our area of responsibility includes all of FEMA region III and V and includes the National Capital Region. Washington, D.C., Philadelphia, Baltimore, Chicago are all major population centers subject to potential WMD attack. C-130s at Yeager provide a centrally located resource away from likely areas of attack, yet close enough to respond quickly in any direction.

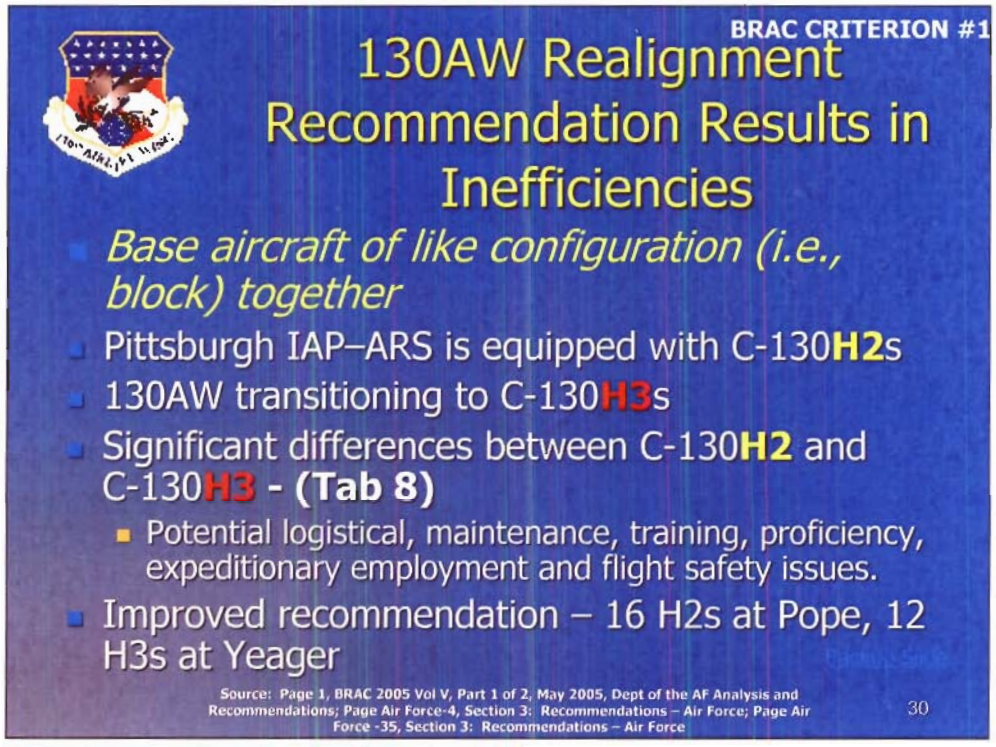
(MOUs are included in Tab 13)



For example, the 35th Civil Support Team, which is a joint WV Army and Air National Guard Weapons of Mass Destruction quick response team, has a 1.5 hour response time to be enroute to an incident or attack. Therefore, timely availability of air transportation is critical for them to accomplish their mission. The 130th Airlift Wing also participates in a Joint WV National Guard "CERF-P" Team. This is Weapons of Mass Destruction response team that complements the capabilities provided by the Civil Support Team and has the same area of responsibility. The CERF team has a required response time to be enroute to an incident or attack within 4 hours. There are only 12 CERF teams in the country and the WVNG CERF team was the FIRST to be certified in all team elements and remains the ONLY team to do so. In fact, the Joint WVNG CERF team (along with our CST) was the ONLY CERF to be on call in support of the 2005 Presidential Inauguration. They were ready to respond within 1 hour of being called. Our C-130 aircraft were a critical part of the JFHQ-WV federal homeland defense mission by providing rapid air cargo preparation, loading, and transportation to these teams in order for them to meet their required response times. The loss of these aircraft will obviously have a critical negative impact on their ability to carry out their mission.



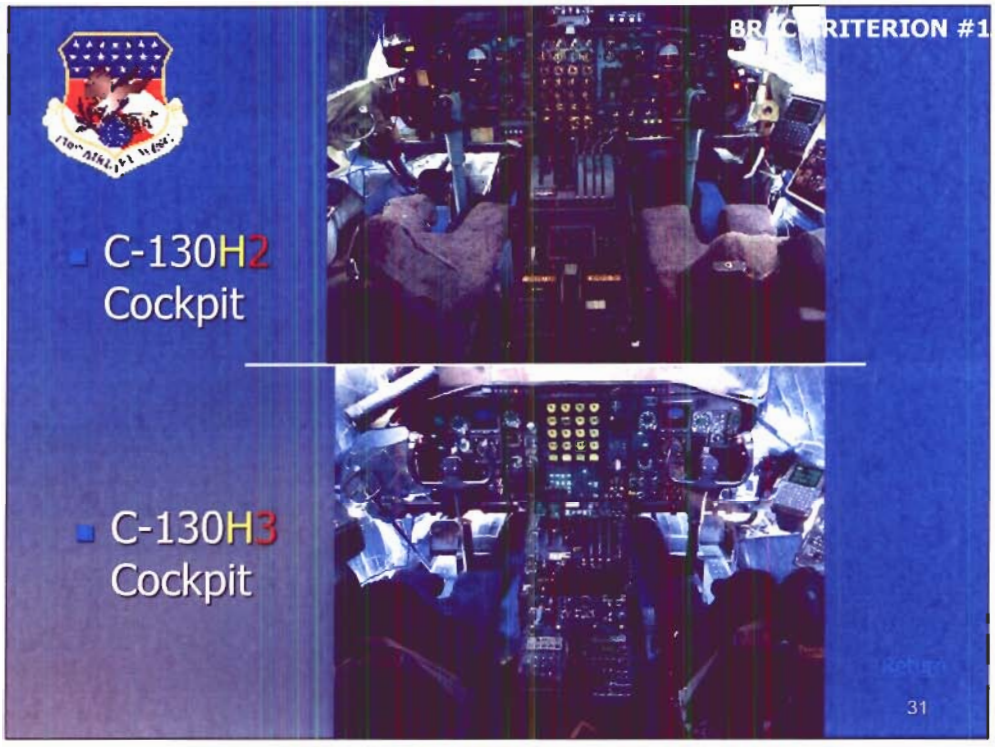
In addition to Homeland Defense, the AF BRAC data calls did not consider ANG impact on disaster response. As this slide illustrates, 130th Airlift Wing personnel have played a significant role in disaster response being utilized in 16 FEMA declared disasters over the last 9 years. This could be considered as one of those "qualitative" factors that did not get considered in the realignment recommendation.



Air Force BRAC documentation states that one pattern you will see in their recommendations is that aircraft of like configuration (model, or block) will be based together. This is important because the other key part of the recommendation to realign Yeager is the realignment of Pittsburgh Air Reserve Station's 8 C-130H aircraft to Pope AFB/Fort Bragg to form a 16 aircraft unit.

Pittsburgh IAP–ARS is currently equipped with C-130**H2** aircraft while the 130th Airlift Wing is currently transitioning to C-130H3s. There are significant differences between H2 and H3 block aircraft which can cause many of the potential problems shown here that result in significant inefficiencies. We've provided a list of some of these differences under Tab 8. Basing C-130H2s and H3s at Pope AFB is counter to the stated AF goal of increasing operational effectiveness and efficiency.

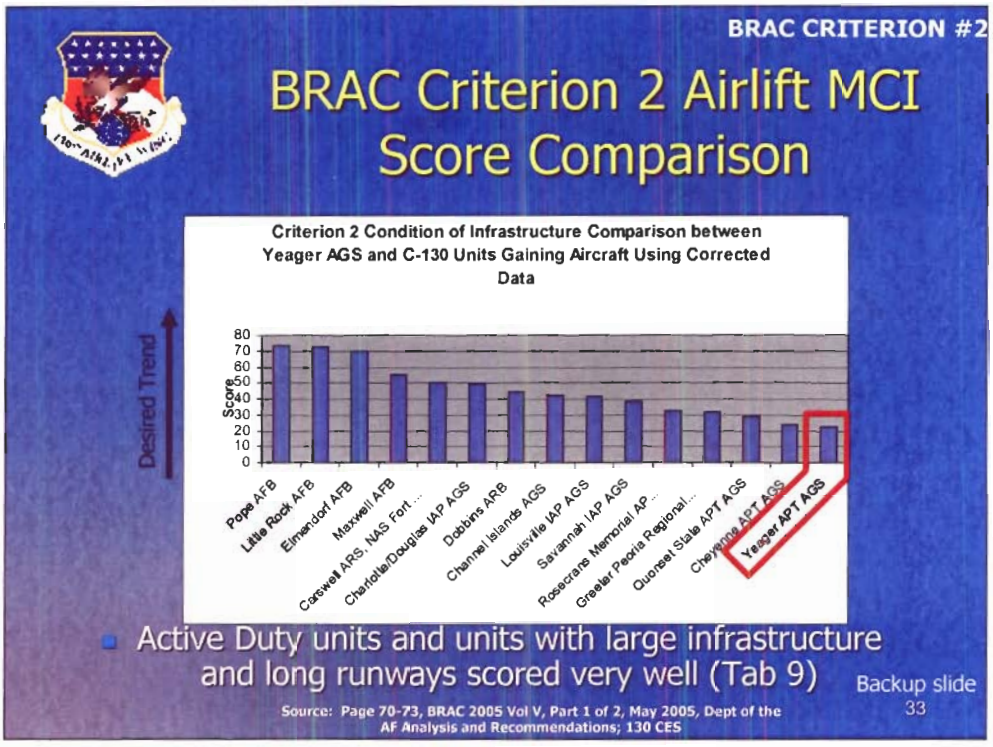
Not only does the 130th Airlift Wing have the existing capacity for additional C-130s, but we would suggest a more operationally effective and efficient recommendation would be to take 16 C-130H2s that are exactly compatible and relocate those aircraft to Pope AFB. Then 12 C-130H3s could be relocated to Yeager AGS, once again meeting the AF basing goal of locating aircraft of like block or configuration together achieving the increased effectiveness and efficiency that the AF desires.



Here are some pictures that illustrate some of the differences between the two blocks of aircraft. Do these aircraft appear to be of "like" block or configuration?

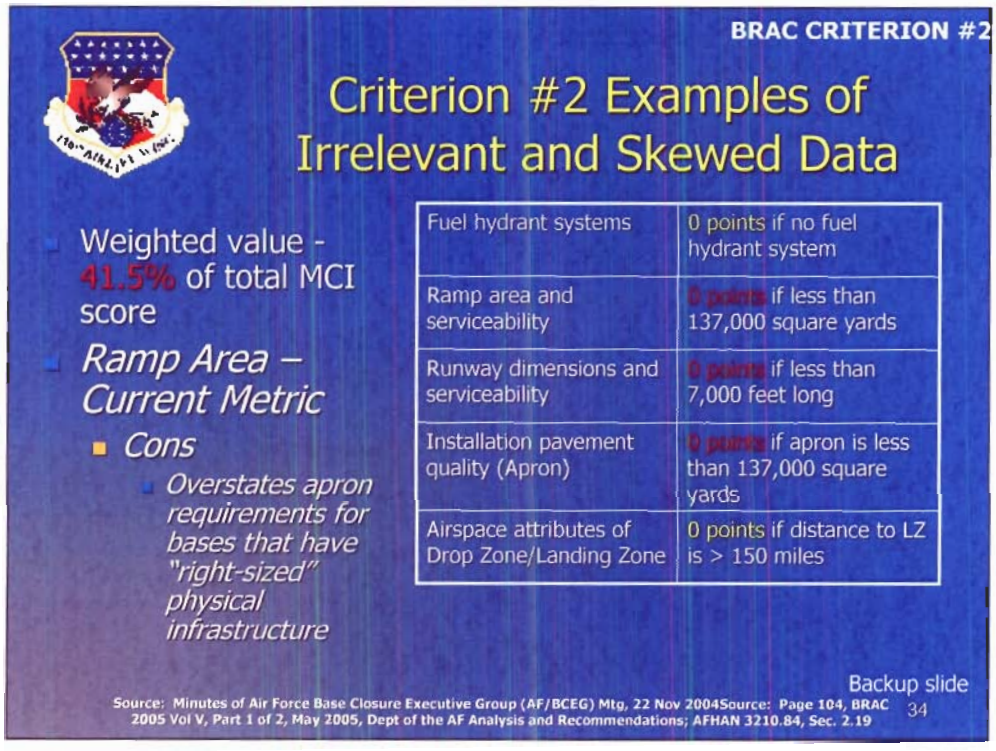
Now, let's take a look at BRAC Criterion #2. This criterion deals primarily with infrastructure.

2. The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.



If we look at the Mission Compatibility Index for Criterion #2 we'll see that Yeager AGS scored lower than other units receiving C-130 aircraft as a result of BRAC. One important point we want to make is how extremely well the large active duty bases with long runways scored in this area compared to Air National Guard facilities located at combined civil/military airports.

When we went back through Criterion #2 data calls we noticed one question that was misinterpreted. We've provided corrected documentation for this in TAB 9. The report states that we earned 19.79, but our calculations yield a score of 22.19, which does not improve our standing when compared to other units gaining aircraft.

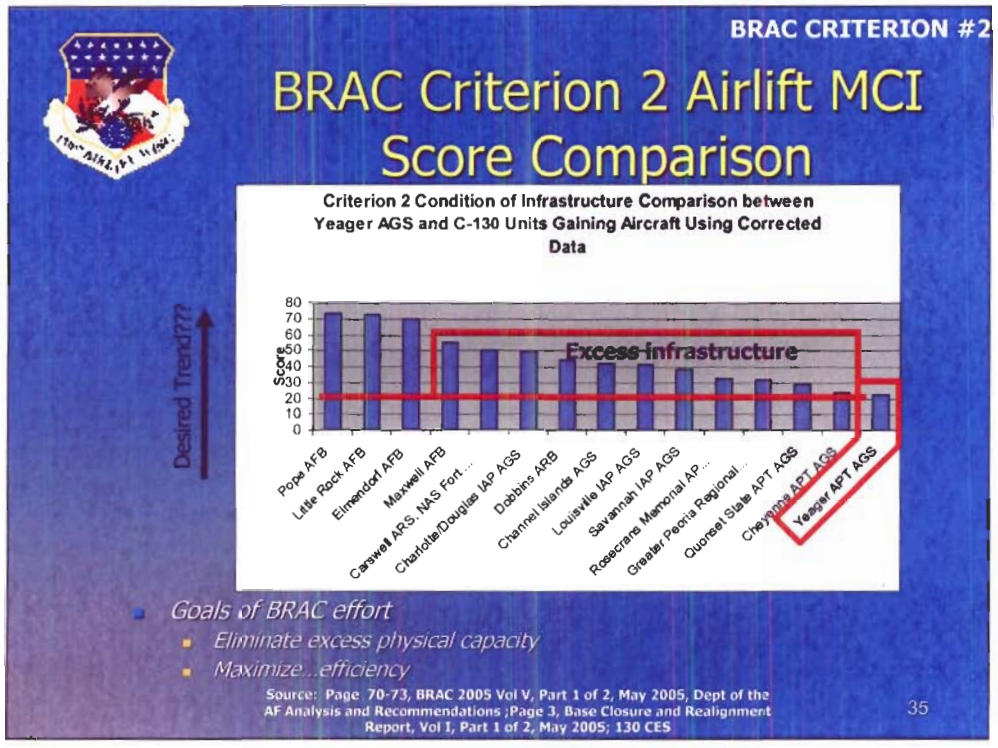


Initially when we went through the questions used to determine the value for criterion number 2, we thought we needed to review the information to see if we could increase our score. But upon closer examination of the questions and the values used to earn points, a trend became very clear. For many of the questions in this criterion a base had to have an excessively large size in order to score any points at all. Of course this strongly favors large active duty installations and is biased against smaller ANG bases. As you can see, the 130th scored 0 points in all of these areas.

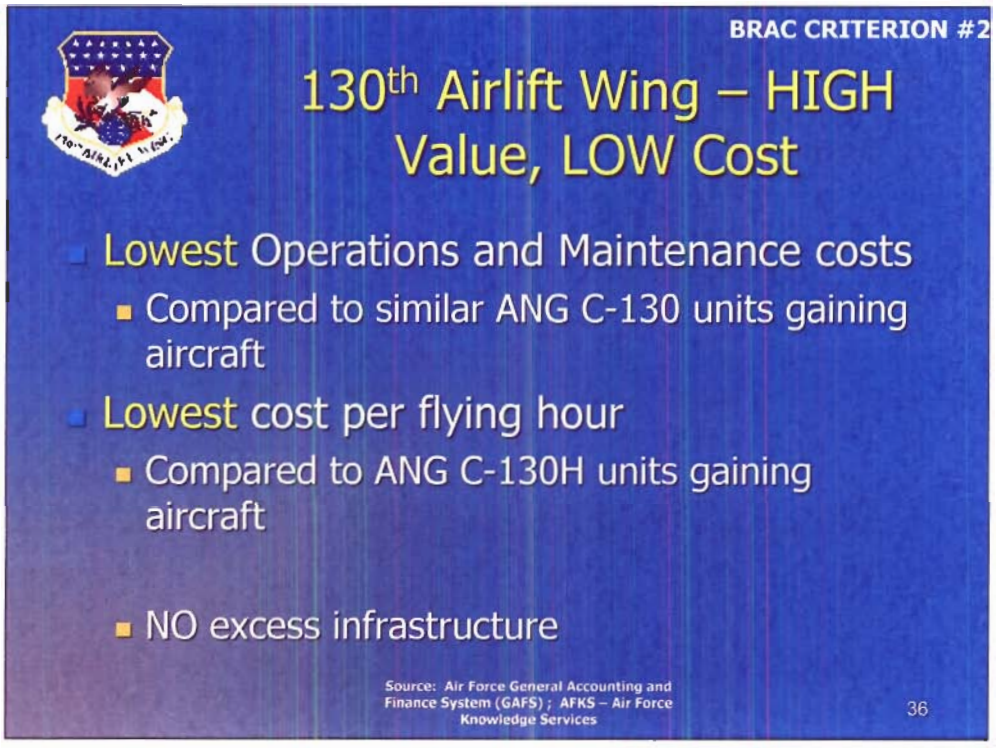
For example, with the ramp we needed a minimum of 137,000 square yards in order to score any points at all. Unfortunately an 8 aircraft ANG unit is only authorized 73,000 square yards of serviceable ramp space by regulation (depending on configuration). Therefore, we would have to be in violation of regulations in order to score any points in many of these areas. But the other point that we feel needs to be made is that we DON'T NEED 137,000 square yards to accomplish our mission with 8 aircraft. Nor, do we need 137,000 square yards to park 12 aircraft. In fact, we can park 12 on our ramp space based on 8 aircraft. This is a qualitative element missing from the data in criterion #2.

Another good example is runway dimensions and serviceability. Unless you had a runway at least 7,000 feet long, you scored 0 points. Our point is that we DON'T NEED a runway that long as we have proven by safely operating C-130s out of Yeager Airport since 1975. All that is required is what is called the "balanced field length" which we have. We've also had C-17s and C-5s regularly operate in and out of Yeager in support of multiple deployments and exercises.

So, the primary point to take away is that the data used in criterion 2 favors bases with large infrastructure and with a weighted value of 41.5%, this score significantly affects the overall military value score. Nevertheless, even the AF Base Closure Executive Group admitted in their meeting minutes when looking at the pros and cons of these criteria that they overstated requirements and negatively impacted units with "right sized" infrastructure like Yeager.



So after further analysis, rather than being disappointed that our score in criterion #2 was so low, we are actually quite pleased with the data since it proves one of our main points – that the 130th Airlift Wing provides higher value at lower cost. What this data actually shows us is that the 130th Airlift Wing can fully perform its mission with the small infrastructure that it has available AND can even expand to perform its mission with 12 aircraft using that same small infrastructure. All of the other units on this graph have EXCESS infrastructure above and beyond what is actually required to perform their mission. Therefore, since they have excess infrastructure that must be operated and maintained, then they also have costs associated with that which are greater than the costs of the 130th Airlift Wing. Keep in mind that some the main goals of BRAC are to REDUCE such excess infrastructure in order to maximize efficiency and reduce costs. This data shows that we have minimal excess capacity and are therefore the most efficient when compared to these other units who are receiving aircraft.



When you start comparing the 130th to other ANG units the data confirms that we provide the highest value at the lowest cost.

When compared to similar units, we operate with the lowest operations and maintenance costs, yet these other units are gaining additional aircraft.

We operate at the lowest cost per flying hour, yet these other units are gaining additional aircraft.

What is a key difference between these units that results in the difference in cost? The 130th Airlift Wing is "right-sized" and does not have the added expense of excess infrastructure that the other units have.

Another key point dealing with infrastructure deals with leased space. The DoD stated that one of their significant improvements in effectiveness and efficiency was the elimination of up to 12 million square feet of leased space. The 130th Airlift Wing is part of this leased space savings.

The Air Force claims that $9 million dollars will be saved as a result of this reduction in leased space. So, yes, the 130th Airlift Wing IS leased space, but when you consider that it is leased at $1 per year over 50 years you see what a bargain it actually is. The monetary savings in eliminating the leased space of the 130th will be $1 per year. In addition to this, if we need to expand, the airport has offered the use of the adjoining taxiway and runway for the additional cost of only $1 per year. So, if when you review the military value and cost savings of this realignment, please make sure that the true figure of $1 per year in savings is used.

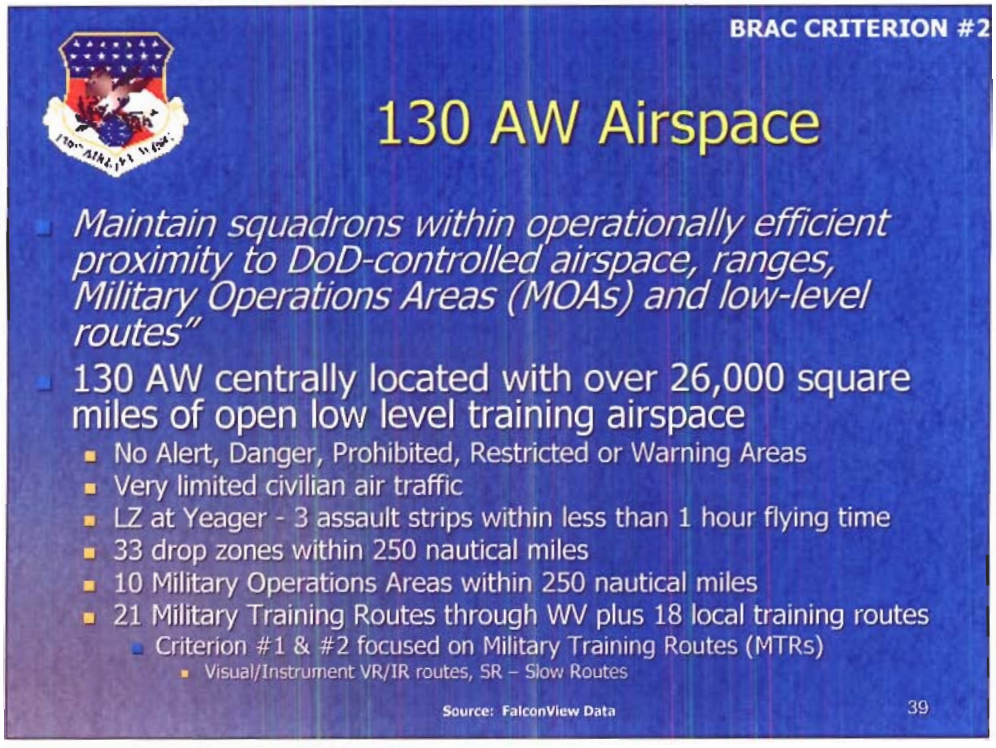
Another factor in this is that the significant cost savings of being a combined military/civilian facility was not considered in any calculations. Yeager AGS has 24 hour air traffic control (ATC) provided at no cost to the military as opposed to an active duty base which requires military ATC. Also, we have no costs associated with runway operations and maintenance, snow removal, etc.

The disconnect is that even though our Infrastructure MCI score did not rate very high, it did not consider several key factors that prove that the leased space at Yeager AGS is a tremendous bargain for the taxpayer.

But that's not just case for now, but that will be the case far into the future. The 130th Airlift Wing has a Master Plan that we have been using over the past several years which includes short and long range infrastructure and capital improvements. It provides the appropriate maintenance, operational, and support facilities to meet anticipated future requirements. This plan also enables us to meet the appropriate space allocation standards set by the Air Force and the ANG, but the planned improvements were not considered in evaluating the infrastructure of Yeager.

For example, we have construction funds approved to build a new fire department building this fiscal year. We have land purchases programmed to meet Anti-terrorism and Force Protection requirements and to incorporate the force protection of the WV National Guard Headquarters and WV Army National Guard Headquarters. We also have money programmed for a new aircraft maintenance hangar.

So as far as FUTURE infrastructure improvements, NONE of this information or data was included in any of the BRAC calculations used in making this recommendation and this is a significant omission.



The other primary area of Criterion #2 pertains to airspace. The Air Force stated that one of their basing principles in making their recommendations was to maintain squadrons within operationally efficient proximity to DoD controlled airspace, ranges, MOAs and low level routes.

The 130th Airlift Wing is centrally located with over 26,000 square miles of open low level training airspace with minimal restrictions and many training resources in all directions. An important piece of data used in determining the value in criterion 1 & 2 was military training routes. The 130th Airlift Wing has many MTRs nearby, but that is not the point. C-130s do not need, nor do they use VR/IR military training routes.

We have approximately 26,240 square miles of airspace that we have designated for use as a low level training area. This includes most of WV and small parts of VA, OH, and KY.

There are only 2 Class C Airfields in our designated training area. Yeager and Roanoke.

There are 5 Class D Airfields in our designated training area. Morgantown, Parkersburg, Clarksburg, Lewisburg and Huntington.

There are numerous Class E Airfields in our designated training area. \

We have 4 SR Routes that are in the Charleston Area (871, 872, 873 and 874) We own 872 and 873

There are 7 SR Routes that use parts of West Virginia (822, 802, 804, 803, 806, 807 and 808)

Combined there are a total of 11 SR Routes that use West Virginia for flying.

There are 10 VR Routes that use parts of West Virginia for flying (1631, 1632, 1633, 1722, 1751, 1756, 1758, 1754, 1756 and 708)

We have 18 visual routes that we have locally generated for low level training.

We have virtually unlimited potential airspace for tactical flying and our terrain is anywhere from mountainous to flat enabling crews to enhance tactical flying skills on a regular basis while staying close to the base.

We use Clarksburg and Charleston for NVG Airland Training.

Currently we are using three Landing Zones

Martinsburg (NVG Airland and Basic Assaults) 180 Nautical Miles or 39 minutes flying time.

Pope (Basic Assaults) 228 Nautical Miles or 49 minutes flying time.

Youngstown (NVG Airland and Basic

Within 250 NM of Yeager Airport we have-

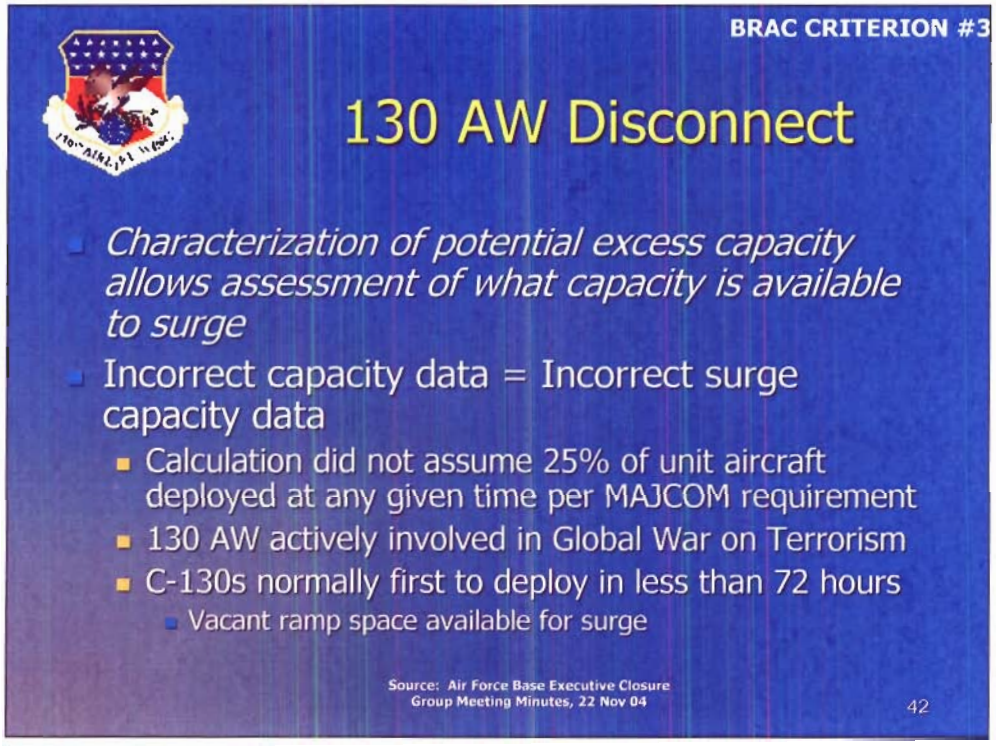
33 Drop Zones, 9 of which are in West Virginia.

10 MOAs, 1 in West Virginia

In West Virginia we have no Alert, Danger, Prohibited, Restricted or Warning Areas

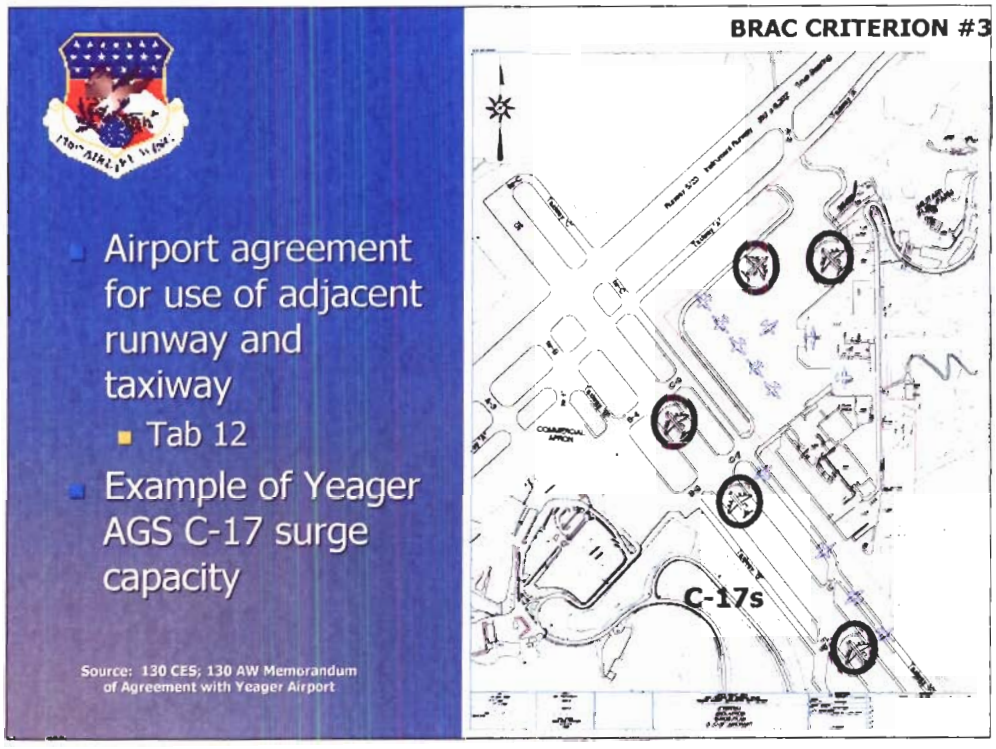
Now on to BRAC Criterion #3.

3. The ability to accommodate contingency, mobilization, surge, and future total force requirements at both existing and potential receiving locations to support operations and training.

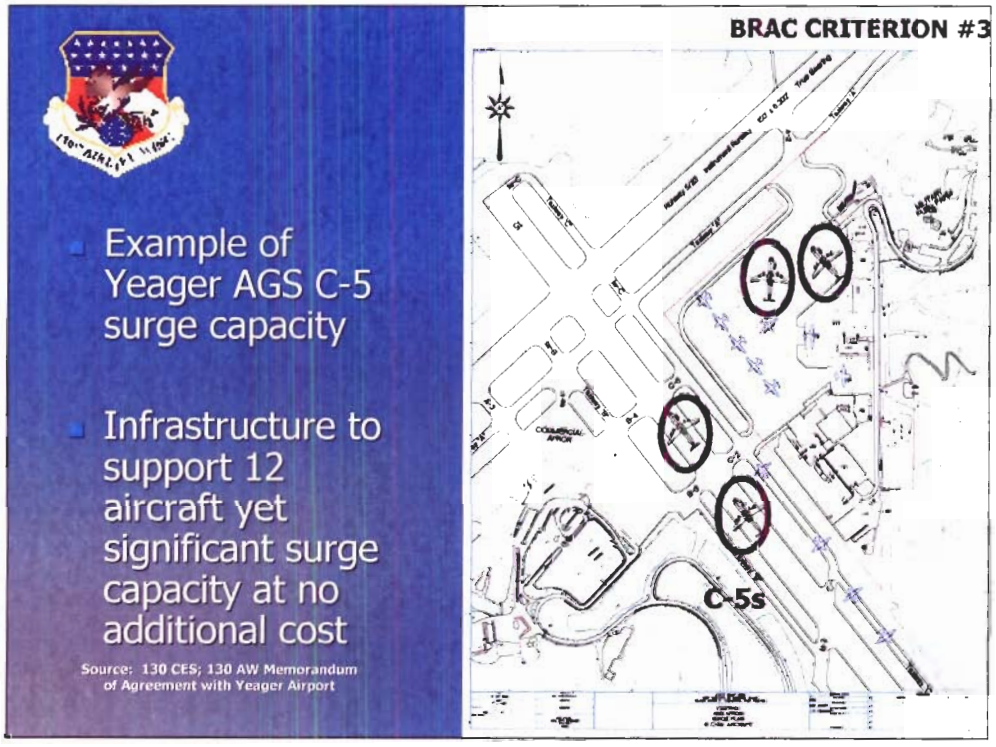


Our disconnect is that since the Air Force used incorrect capacity data at the beginning of the process, and since they did not know about any future expansion plans with the airport using unconstrained acreage at $1 per year, then any surge capacity they calculated for Yeager AGS is inaccurate and must be reconsidered given these facts. Also, our review of BCEG meeting minutes shows that the calculation of surge was based on all aircraft at the base being there at all times rather than the MAJCOM recommendation of assuming that 25% of a bases aircraft would likely be gone at any given time. If you want to consider how busy this unit is in the Global War on Terror, I can assure you that we very rarely actually have all of our aircraft on the ramp at any given time, which yields even more surge capacity. Furthermore, C-130 units are normally the first units deployed in large scale military operations and are required to be able to deploy within 72 hours of notification. This actually results in a clear ramp at the beginning of any operation that is available for follow-on surge requirements.

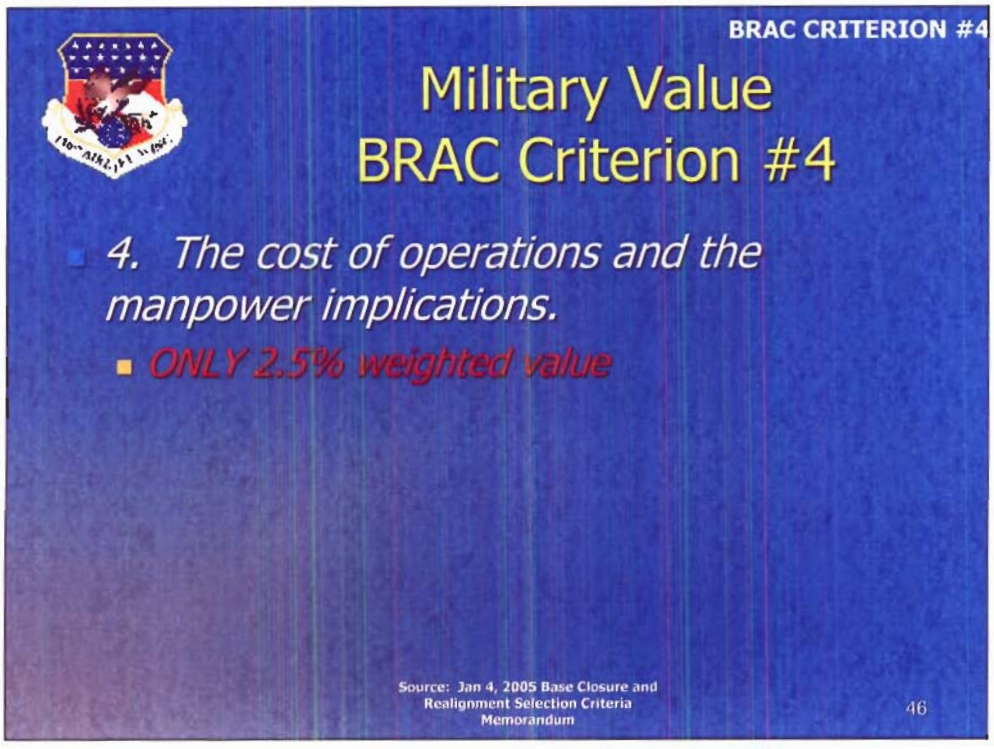
The 130th Airlift Wing has more surge capacity that you may think. C-5s and C-17s have regularly operated out of Yeager in support of deployments and exercises.



And when you consider that Yeager Airport offers us use of the adjacent taxiway and runway at any time (see Tab 12), you can see that Yeager has significant surge capacity by using space outside of the property boundary at no additional cost. Here you see an example of C-17 surge capability even with 12 C-130s based at Yeager.



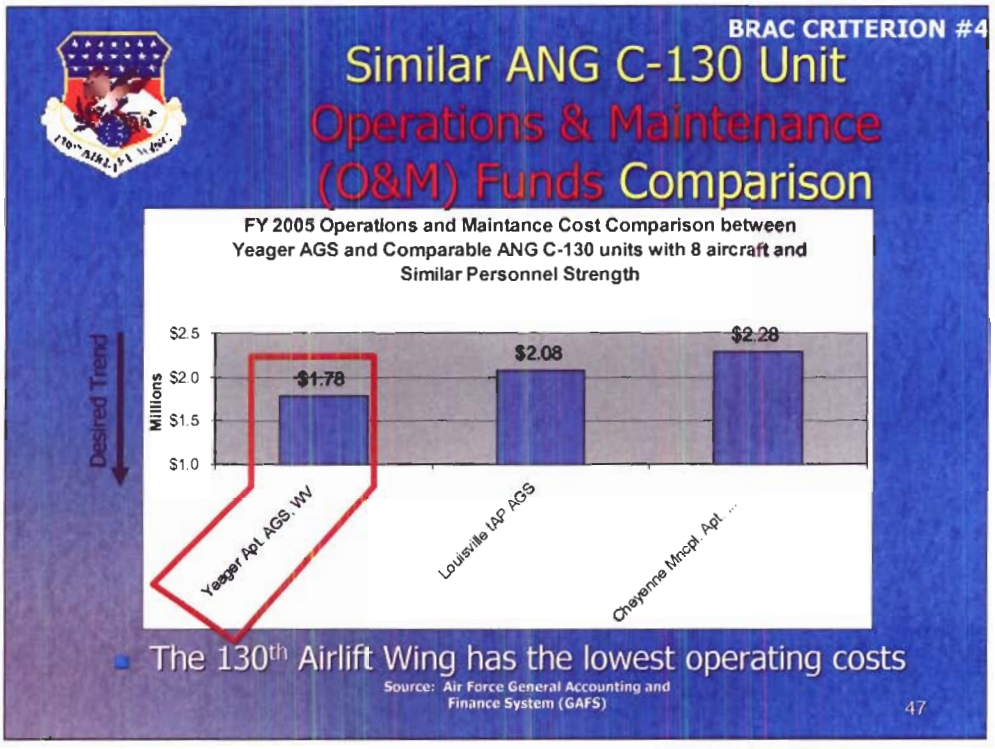
We even have a C-5 surge capability as you can see here. These are key elements of military value that were not considered in the data calls. Our existing infrastructure enables us to provide significant surge capacity at any time at no additional cost to the taxpayer.



Criterion #4.

4. The cost of operations and the manpower implications.

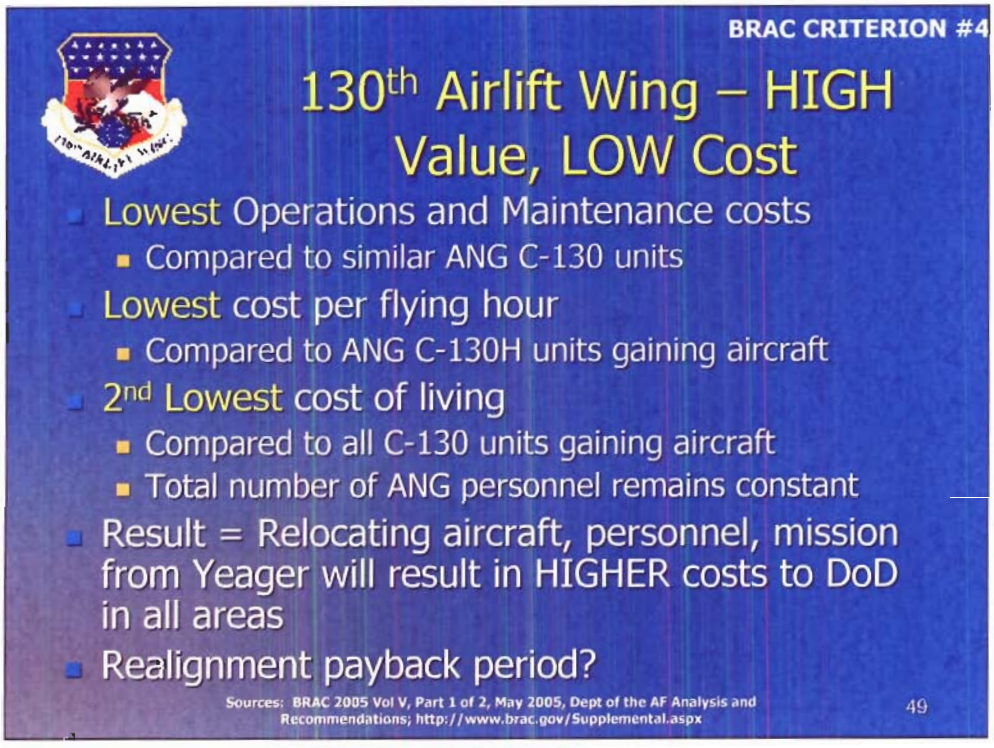
Keep in mind that this particular criterion was where the 130th scored the highest of it's 4 MCI values, but it was only weighted at 2.5%.



As I've already mentioned, when compared to similar units, we also operate with the lowest operations and maintenance costs, yet these other units are gaining additional aircraft.

We operate at the lowest cost per flying hour compared to other ANG C-130H units, yet these other units are gaining additional aircraft.

CPFH includes: PMEL, Fuel, Tools, Parts, Equipment, Latrine Service, etc. All consumable items directly related to aircraft, aircraft maintenance and the production of sorties and/or flying operations are CPFH expenses. Additionally, aircrew gear/equipment required to perform aircrew duties are CPFH expenses. All items that fall in these categories, whether they are on the aircraft or stored off the aircraft are CPFH expenses. Further, some Non-Fly Aviation Fuel (AVFUEL) used in support of flying operations is a CPFH expense. Items in the FSG Exclusion list are not authorized to be bought in the flying hour program. In the FM Guidance is a statement regarding permanently Waived Items.



When compared to all C-130 units gaining aircraft, the Yeager actually has the 2nd lowest cost of living expenses.

Another important cost factor to consider is personnel. The realignment recommendation for the 130th will result in a significant reduction of full time and part time personnel. But the TOTAL number of personnel in the Air National Guard stays the same throughout this process. The slots for these personnel let go from the 130th will be added elsewhere throughout the country to other ANG units. If Yeager is the most cost efficient unit, then when you move these slots anywhere else, they will be at a greater cost than can be provided at Yeager. This goes against one of the main purposes of BRAC – reduce costs!

If this realignment increases costs, one has to ask what the payback period is for this proposal?

Candidate Recommendations Financials Summary
Sorted on Net Present Value (Highest to Lowest)

BRAC CRITERION #4

Candidate Recommendation	Description	Gross Savings/(Costs) $K	20 Yr NPV Savings/(Costs) $K	1 Time (Costs) $K	Annual Recurring Savings/(Costs) $K	Payback Years	Net Military Job Change	Net Civilian Job Change	Total Job Change	Status
USA-0036	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Allen, PR	(6,344)	(20,911)	(14,567)	(505)	Never	0	0	0	Tentatively Recommended
USA-0027	Close/Consolidate Army Guard and Reserve Centers as Armed Forces Reserve Center Lafayette, IN	1,782	(21,757)	(23,539)	102	100+	0	0	0	Tentatively Recommended
USA-0016	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Chaffee, AR	1,504	(21,976)	(23,480)	73	100+	0	0	0	Tentatively Recommended
USAF 0008	Realign Reno-Tahoe Intl Airport AGS, CA (Enclave ECS element and DCGS)	(2,708)	(22,161)	(19,453)	(417)	Never	0	0	0	Tentatively Recommended
USA-0029	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center NW Houston, TX	3,102	(23,430)	(26,532)	188	100+	(2)	0	(2)	Tentatively Recommended
USA-0077	Close/Consolidate Reserve and Guard Centers at IOWA AAP, Middletown, IA	(2,973)	(24,186)	(21,186)	(203)	Never	0	0	0	Tentatively Recommended
USA-0095	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center NAS Roosevelt Rds, Ceiba, PR	1,878	(24,561)	(26,407)	97	100+	0	0	0	Tentatively Recommended
USA-0028	Close/Consolidate Guard Readiness Centers at Armed Forces Reserve Center Greenwood-Franklin, IN	(1,788)	(25,509)	(23,741)	(171)	Never	0	0	0	Tentatively Recommended
USA-0105	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Rutland, VT	11,070	(25,998)	(37,068)	792	100+	0	0	0	Tentatively Recommended
USAF 0041	Close Lambert-St Louis Intl Airport AGS, MO (Enclave ECS element)	(1,209)	(26,546)	(25,337)	(35)	Never	0	0	0	Tentatively Recommended
USAF 0052	Close Willow Grove ARS, PA (Enclave 270th Eng Sqdn)	15,981	(28,104)	(44,085)	919	100+	0	0	0	Tentatively Recommended
USA-0154	Close/Consolidate Army Guard and Reserve centers at Armed Forces Reserve Center Niagara Falls, NY	(5,885)	(29,289)	(23,604)	(478)	Never	0	0	0	Tentatively Recommended
USA-0201	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Dyess AFB, TX	(1,098)	(31,042)	(29,346)	(183)	Never	0	0	0	Tentatively Recommended
USA-0104	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Camp Bullis, TX	1,047	(31,323)	(32,367)	6	100+	0	0	0	Tentatively Recommended
USA-0158 V2	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center NS Newport, RI (JAST)	(1,460)	(33,935)	(31,935)	(168)	Never	0	0	0	Tentatively Recommended
USAF 0055	Realign NAS New Orleans ARS, LA relocate A-10 to Whiteman AFB, MO & Barksdale AFB, LA	(4,191)	(33,730)	(29,539)	(486)	Never	0	0	0	Tentatively Recommended
USA-0193M	Close and relocate Army Guard ctrs to AASF Cheyenne, WY (FE Warren AFB)	34,313	(35,640)	(69,953)	2,427	78	(19)	0	(19)	Tentatively Recommended
USA-0180	Close/Consolidate Army NG/Res Ctrs w/ Navy Reserve Center at Armed Forces Reserve Center FT Buchanan, PR (JAST)	(4,883)	(35,866)	(31,313)	(443)	Never	0	0	0	Tentatively Recommended
USA-0138	Close/Consolidate Army Guard / Reserve with Navy Reserve Center at White River Junction, VT (JAST)	2,042	(36,415)	(38,457)	66	100+	0	0	0	Tentatively Recommended
USAF-0079	Close Portland Intl Airport AGS, OR, relocate KC-135, F-15s (Enclave Cannon Spdn)	7,934	(38,599)	(46,533)	473	100+	0	0	0	Tentatively Recommended
USAF-0127	Close Yeager AGS, WV	(29,489)	(39,689)	(10,200)	(2,439)	Never	0	0	0	Tentatively Recommended
	Armed Forces Reserve Center Farmingdale, NY (JAST)									
USA-0082										atively Recommended
USA-0015										atively Recommended
USA-0219										atively Recommended
USA-0114										atively Recommended
USA-0081										atively Recommended
USA-0202										atively Recommended
USA-0150	Center DSC Columbus, OH	(6,118)	(100,208)	(111,108)	308	100+	(12)	0	(12)	Tentatively Recommended

"A payback of Never or 100+ years without a very strong argument/justification will threaten the credibility of the BRAC process."

Source:6 Apr 05, Weekly Status Reports; BRAC
2005 Discussion Topics, 25 Feb 2005

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According to DoD calculations the answer is that the payback period for this realignment is NEVER. As we have shown you, it will only result in increased costs for the DoD. A payback period of NEVER was identified as an area of concern within DoD documentation and it was noted that without very strong justification, recommendations such as these threaten the credibility of the BRAC process.

The BRAC Red Team identified this same issue in their white papers. They stated that it appeared that the Air Force recommendations were only to move aircraft and gain additional construction funding, not to reduce excess infrastructure. Although BRAC law requires that actions should result in installation and personnel cost savings, most of the AF actions, including the 130 AW realignment, do not result in any savings at all.

One of the regulatory requirements of the BRAC process is that recommendations affecting the Reserve component must complete recruiting demographic studies to make sure that the impacts of the recommendation are considered. The Air Force states that the Reserve components were involved in the process and that recruiting and retention demographics were important factors.

Although it is possible that demographic data for this realignment has not been publicly released yet, what we do know is that we have been unable to find any recruiting demographics study regarding the 130th Airlift Wing as required by law and DoD Regulation. This is yet another disconnect that we have with this realignment recommendation.

In developing BRAC 2005 recommendations affecting Reserve component activities, DoD Components and JCSGs must complete Reserve component recruiting demographic studies required by DoD Directive 1225.7 to ensure that the impact on the Reserve components of specific realignments and closures are considered.

Overview of AF Analytical Basis – Military Value

> *The Air National Guard and Air Force Reserve were key to these deliberations and reserve component recruiting and retention demographics were important factors.*

BRAC CRITERION #4

BRAC 2005 Recommendation

- *This recommendation could result in a maximum potential reduction of 246 jobs (156 direct jobs and 90 indirect jobs) over the 2006-2011 period in the Charleston, WV area*

Quantitative Results

Manpower		
Installation	Full Time	Drill (Part-time)
Impact	-163	-447

Includes BRAC and Non-BRAC Programmatic Changes through FY2011.

- Expeditionary Combat Support personnel enclave – no defined mission

Source: Page Air Force -36, Section 3: Recommendations – Air Force; Yeager AGS, WV BRAC 2005 Recommendations

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This realignment recommendation would result in the loss of personnel shown here (using AF figures, numbers don't add up). The remaining personnel would be left in an ECS "enclave" with no defined mission. This is a poorly defined, unproven concept that lacks any specifics.

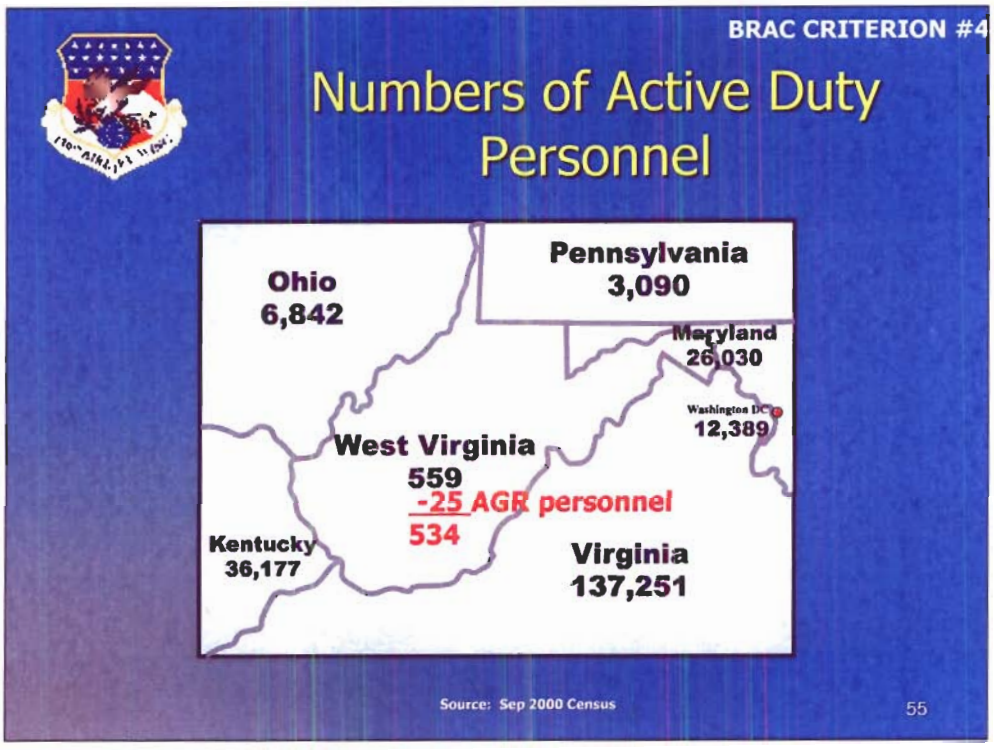
BRAC CRITERION #4

Rank	State	Number of Active Duty	Cumulative Percentage
1	California	153,482	13.1%
2	Virginia	137,251	24.9%
3	Texas	111,220	34.4%
4	North Carolina	91,139	42.2%
5	Georgia	67,161	47.9%
6	Florida	63,868	53.4%
7	Washington	49,594	57.6%
8	South Carolina	40,518	61.1%
9	Hawaii	39,218	64.5%
10	Kentucky	36,177	67.6%
11	Illinois	34,419	70.5%
12	Colorado	26,136	72.7%
13	Maryland	26,030	75.0%
14	Oklahoma	24,987	77.1%
15	Arizona	21,228	78.9%
16	Mississippi	17,091	80.4%
17	Missouri	17,010	81.8%
18	Kansas	16,004	83.2%
19	New York	15,973	84.6%
20	Louisiana	15,622	85.9%
21	Alaska	15,255	87.2%
22	District of Columbia	12,389	88.3%
23	Alabama	11,248	89.2%
24	New Mexico	10,934	90.2%
25	New Jersey	8,537	90.9%
26	Nevada	7,679	91.6%
27	Nebraska	7,600	92.2%
28	North Dakota	7,167	92.8%
29	Ohio	6,842	93.4%
30	Connecticut	6,683	94.0%
31	Utah	4,776	94.4%
32	Arkansas	4,746	94.8%
33	Idaho	4,240	95.2%
34	Delaware	3,734	95.5%
35	Montana	3,521	95.8%
36	Rhode Island	3,317	96.1%
37	Wyoming	3,312	96.4%
38	Maine	3,127	96.6%
39	South Dakota	3,111	96.9%
40	Pennsylvania	3,090	97.1%
41	Tennessee	2,397	97.4%
42	Massachusetts	2,334	97.6%
43	Indiana	1,086	97.6%
44	Michigan	1,037	97.7%
45	Minnesota	734	97.8%
46	Oregon	641	97.9%
47	New Hampshire	603	97.9%
48	Wisconsin	561	98.0%
49	West Virginia	559	98.0%
50	Iowa	393	98.0%
51	Vermont	54	98.0%
52	Unknown	22,914	100.0%
	Total DoD	**1,168,749**	

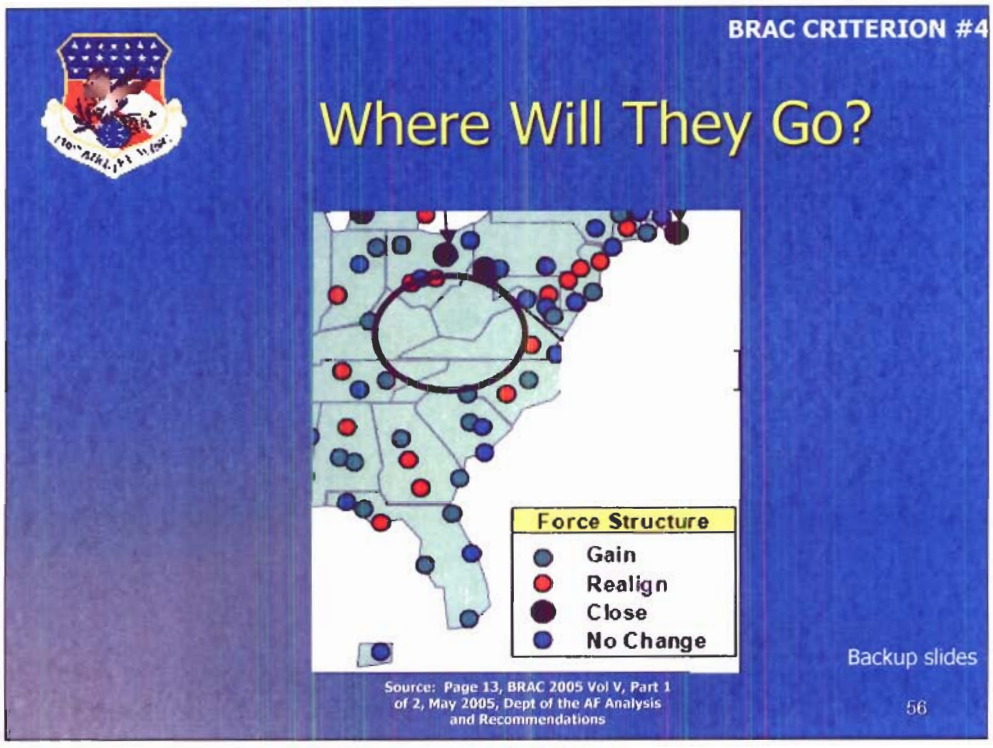
Source: Sep 2000 Census

DMDC Active Duty Master File (September 2000)

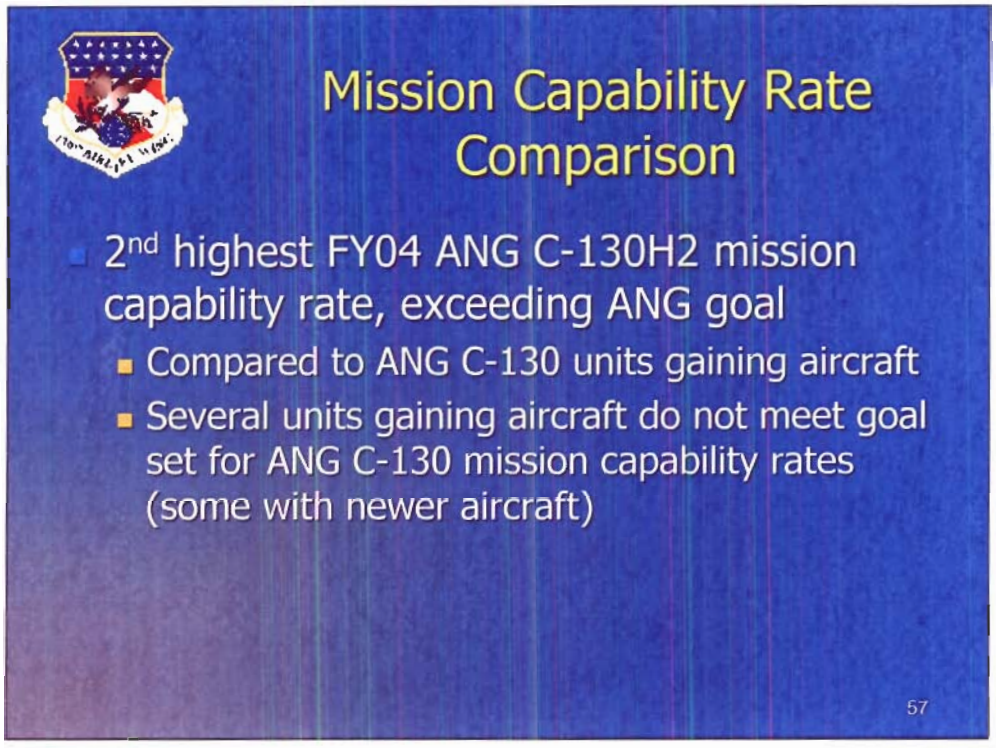
Part of that number of reduced personnel would be AGR – Active Guard and Reserve personnel. When you compare active duty personnel numbers in WV to those in other states, you can see that we are 49th in the nation in total numbers of active duty personnel. WV has no active duty bases and only 2 Air National Guard installations. Now, one of those two is scheduled for realignment resulting in further reduction of military presence within the state.



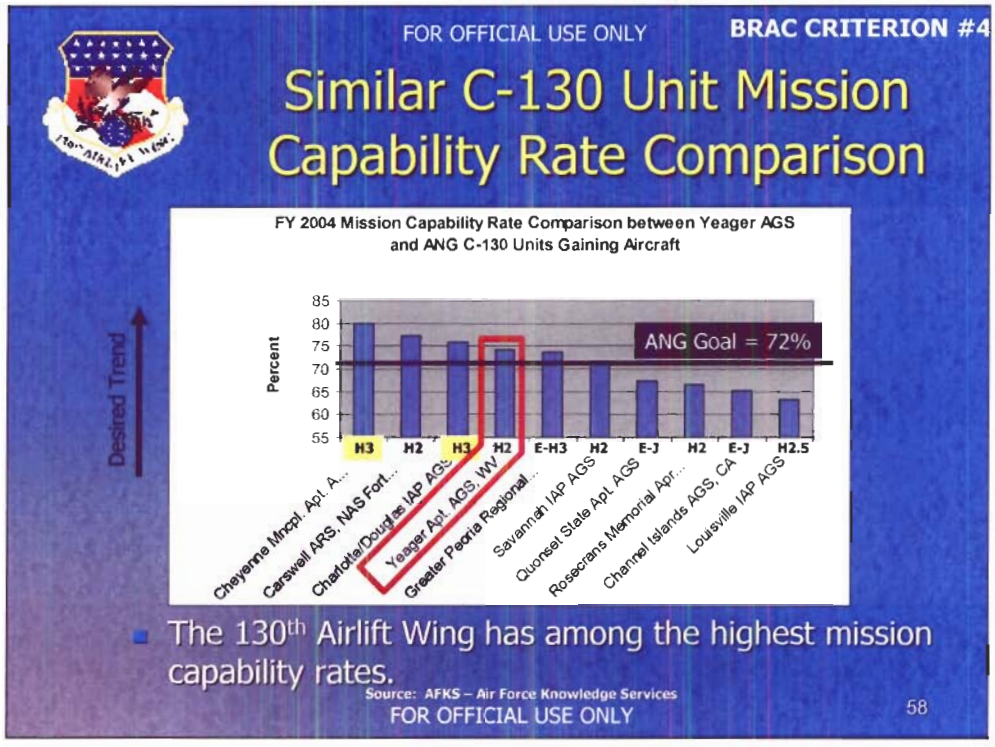
When compared to the numbers of active duty personnel in surrounding states the contrast becomes even more clear. The result of the proposed realignment of the 130th Airlift Wing would result in a decrease in this already very small number.



The question that we ask is where will all of these people who are eliminated go if they wish to continue to serve in the Air National Guard? 86% of our personnel live within 100 miles of Yeager and the average commuting distance is already 62.5 miles, greater than the recommended 50 miles distance used throughout the process. Since there are no active duty bases in the state, there is no opportunity for joint Active/Reserve units. And to reach another ANG unit requires a 4 to 6 hour drive in any direction. The likely result of this realignment will be that the valuable, experienced personnel of this unit will be forced to end their voluntary service which would be a tremendous loss to the DoD.



These experienced personnel provide a qualitative value that was not considered at all in this realignment recommendation. For example, when compared to the other ANG units gaining additional C-130 aircraft, you can see that our experienced maintenance personnel provided the DoD with one of the highest mission capable rates. Two of the units with higher rates have much newer H3 aircraft. Many of the other units gaining aircraft do not meet the ANG MC goal of 72%.



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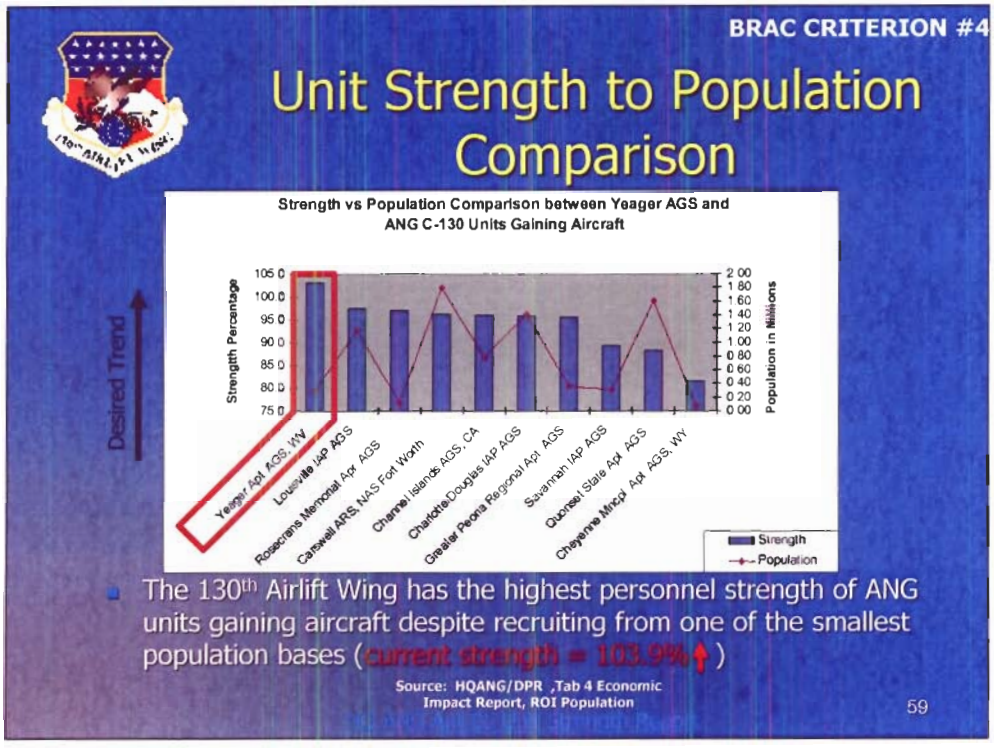

Now let's take a look and some of the quantitative aspects of our personnel. Here you see that of all of the ANG C-130 units gaining additional aircraft, the 130th Airlift Wing has the highest personnel strength at 103.0% as of 30 April and currently 103.9%. Even after the BRAC realignment recommendation came out, we continue to grow in strength! The question that we have to ask here is that if these other units can't fill their unit positions for the aircraft that they have, how can they be expected to fill additional positions for the other aircraft?

And when you compare unit strength to the local population base that each unit has to recruit from, the differences become even more apparent. Using AF BRAC data, you see that even though nearly every other unit has a higher population base to recruit from, they still can't fully man their units. Yet the 130th Airlift Wing with a much smaller population base to recruit from, fills its existing positions to over 100%. Which unit demonstrates better potential to receive additional aircraft?

1			April FY 2005 Data										
2	State	MPF	Enlisted			Officer			Overall TOTAL			Current Status	
3			Auth	Asgn	Pct	Auth	Asgn	Pct	Auth	Asgn	Pct		
4	GU	G1	249	303	121.7%	25	24	96.0%	274	327	119.3%	Green	
5	OH	J4	1047	1146	109.5%	130	113	86.9%	1177	1259	107.0%	Green	
6	LA	D9	1263	1373	108.7%	162	139	85.8%	1425	1512	106.1%	Green	
7	OH	J6	832	901	108.3%	144	128	88.9%	976	1029	105.4%	Green	
8	WI	N2	721	762	105.7%	115	117	101.7%	836	879	105.1%	Green	
9	WI	M9	1138	1203	105.7%	147	146	99.3%	1285	1349	105.0%	Green	
10	MN	F3	1028	1104	107.4%	215	198	92.1%	1243	1302	104.7%	Green	
11	IN	D3	860	910	105.8%	96	86	89.6%	956	996	104.2%	Green	
12	MN	F4	889	925	104.0%	102	102	100.0%	991	1027	103.6%	Green	
13	WV	M7	820	855	104.4%	164	158	96.3%	984	1014	103.0%	Green	YEAGER
14	OH	J3	1281	1341	104.7%	211	196	92.9%	1492	1537	103.0%	G	
15	MI	E8	938	960	102.3%	138	138	100.0%	1076	1098	102.0%	G	
16	IA	D5	844	873	103.4%	124	113	91.1%	968	986	101.9%	G	
17	SD	L3	884	900	101.8%	113	114	100.9%	997	1014	101.7%	G	
18	TN	L6	1019	1047	102.7%	165	156	94.5%	1184	1203	101.6%	G	
19	MI	E9	1493	1538	102.9%	197	171	86.8%	1690	1707	101.0%	G	
20	FL	C2	1705	1760	103.2%	261	222	85.1%	1966	1982	100.8%	G	
21	IA	D4	881	889	100.9%	125	123	98.4%	1006	1012	100.6%	G	
22	OK	J9	1078	1109	102.9%	203	178	87.7%	1281	1287	100.5%	Green	
23	WV	M8	984	1021	103.8%	196	160	81.6%	1180	1181	100.1%	Green	
24	VA	M4	1105	1120	101.4%	148	131	88.5%	1253	1251	99.8%	Green	
25	NE	G4	779	780	100.1%	165	160	97.0%	944	940	99.6%	Green	
26	WA	M5	970	964	99.4%	127	124	97.6%	1097	1088	99.2%	Green	
27	IL	C8	995	1000	100.5%	128	113	88.3%	1123	1113	99.1%	Green	
28	KS	D7	791	792	100.1%	140	129	92.1%	931	921	98.9%	Green	
29	IN	D2	933	933	100.0%	124	109	87.9%	1057	1042	98.6%	Green	
30	CO	B6	1191	1176	98.7%	218	212	97.2%	1409	1388	98.5%	Green	
31	AZ	A6	1415	1404	99.2%	172	159	92.4%	1587	1563	98.5%	Green	
32	OH	J7	1106	1090	98.6%	114	109	95.6%	1220	1199	98.3%	Green	
33	NJ	G8	884	879	99.4%	104	91	87.5%	988	970	98.2%	Green	
34	NY	H3	1478	1451	98.2%	144	140	97.2%	1622	1591	98.1%	Green	
35	CA	B4	949	950	100.1%	138	116	84.1%	1087	1066	98.1%	Green	
36	PA	K6	915	903	98.7%	108	99	91.7%	1023	1002	97.9%	Green	
37	KY	C6	1026	1008	98.2%	127	116	91.3%	1153	1124	97.4%	Green	LOUISVILLE
38	NM	H2	849	844	99.4%	140	118	84.3%	989	962	97.3%	Green	
39	OR	K3	1271	1228	96.6%	139	143	102.9%	1410	1371	97.2%	Green	

•103.2% excluding HQ WVANG
•Currently 103.9% excluding HQ WVANG

1			April FY 2005 Data										
2	State	MPF	Enlisted			Officer			Overall TOTAL			Current Status	
3			Auth	Asgn	Pct	Auth	Asgn	Pct	Auth	Asgn	Pct		
37	KY	D8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Green	LOUISVILLE
38	NM	H2	849	844	98.4%	140	118	84.3%	989	962	97.3%	Green	
39	OR	K3	1271	1228	96.6%	139	143	102.9%	1410	1371	97.2%	Green	
40	PR	K8	1120	1111	99.2%	181	154	85.1%	1301	1265	97.2%	Green	
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Green	ROSECRANS
42	NV	G5	901	889	98.7%	167	147	88.0%	1068	1036	97.0%	Green	
43	NY	H6	702	685	97.6%	110	102	92.7%	812	787	96.9%	Green	
44	IL	C7	759	736	97.0%	104	99	95.2%	863	835	96.8%	Green	
45	OK	K2	1018	983	96.6%	115	112	97.4%	1133	1095	96.6%	Yellow	
46	AR	A7	965	927	96.1%	165	164	99.4%	1130	1091	96.5%	Yellow	
47	MS	F7	901	875	97.1%	156	143	91.7%	1057	1018	96.3%	Yellow	
48	AZ	A5	894	845	94.5%	146	156	106.8%	1040	1001	96.3%	Yellow	
49	TX	C8	1000	974	97.4%	167	149	89.2%	1167	1123	96.2%	Yellow	CARSWELL
50	ND	J2	913	886	97.0%	125	110	88.0%	1038	996	96.0%	Yellow	
51	CA	B5	1167	1140	97.7%	237	206	86.9%	1404	1346	95.9%	Yellow	CHANNEL ISLAND
52	KS	D6	1168	1139	97.5%	172	145	84.3%	1340	1284	95.8%	Yellow	
53	NC	H9	1344	1286	95.7%	239	229	95.8%	1583	1515	95.7%	Yellow	CHARLOTTE
54	IL	C9	1098	1068	97.3%	161	135	83.9%	1259	1203	95.6%	Yellow	PEORIA
55	AR	A8	889	854	96.1%	103	93	90.3%	992	947	95.5%	Yellow	
56	MD	E3	1451	1395	96.1%	247	225	91.1%	1698	1620	95.4%	Yellow	
57	OR	K1	689	677	98.3%	86	62	72.1%	775	739	95.4%	Yellow	
58	PA	K7	1312	1268	96.6%	191	165	86.4%	1503	1433	95.3%	Yellow	
59	TX	L7	899	865	96.2%	124	107	86.3%	1023	972	95.0%	Yellow	
60	CA	B2	847	805	95.0%	99	90	90.9%	946	895	94.6%	Red	
61	NY	H7	1256	1178	93.8%	240	236	98.3%	1496	1414	94.5%	Red	
62	HI	C5	2176	2083	95.7%	294	244	83.0%	2470	2327	94.2%	Red	
63	SC	L2	1112	1044	93.9%	132	125	94.7%	1244	1169	94.0%	Red	
64	NH	G6	859	809	94.2%	135	123	91.1%	994	932	93.8%	Red	
65	NJ	G7	1201	1120	93.3%	195	188	96.4%	1396	1308	93.7%	Red	
66	ID	C6	1259	1192	94.7%	183	153	83.6%	1442	1345	93.3%	Red	
67	MO	F8	1342	1277	95.2%	267	223	83.5%	1609	1500	93.2%	Red	
68	PA	K4	1522	1429	93.9%	263	230	87.5%	1785	1659	92.9%	Red	
69	NY	H8	1058	959	90.6%	240	239	99.6%	1298	1198	92.3%	Red	
70	AL	A2	1207	1118	92.6%	153	135	88.2%	1360	1253	92.1%	Red	
71	MS	F6	1402	1284	91.6%	215	204	94.9%	1617	1488	92.0%	Red	
72	MT	G3	980	904	92.2%	121	108	89.3%	1101	1012	91.9%	Red	
73	ME	E2	1068	963	90.2%	141	139	98.6%	1209	1102	91.1%	Red	

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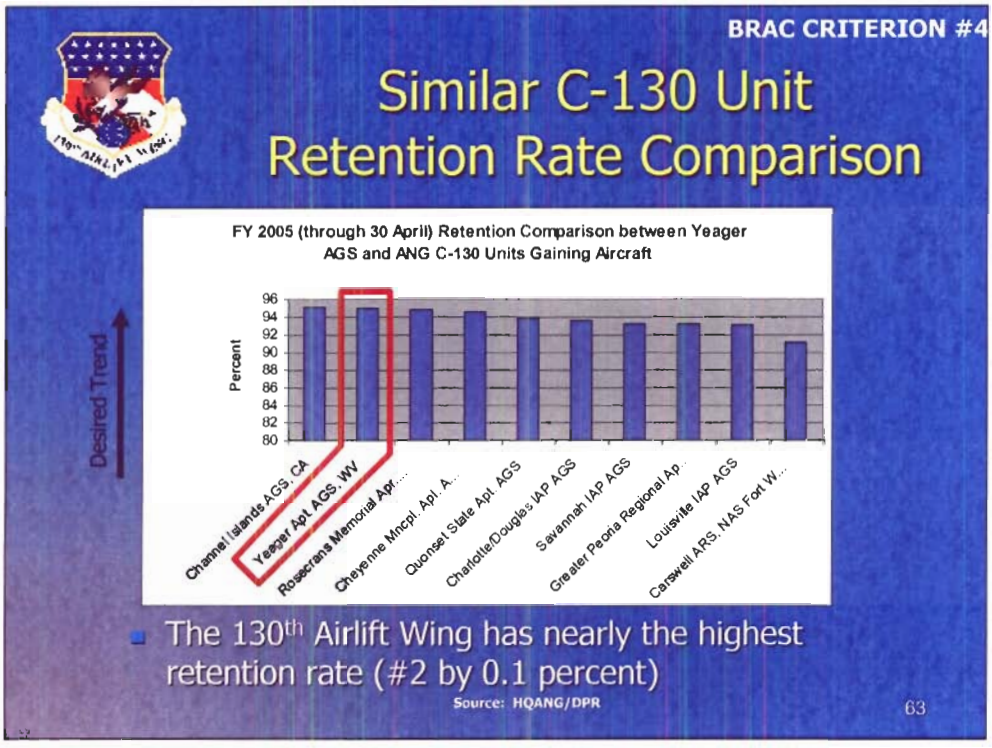
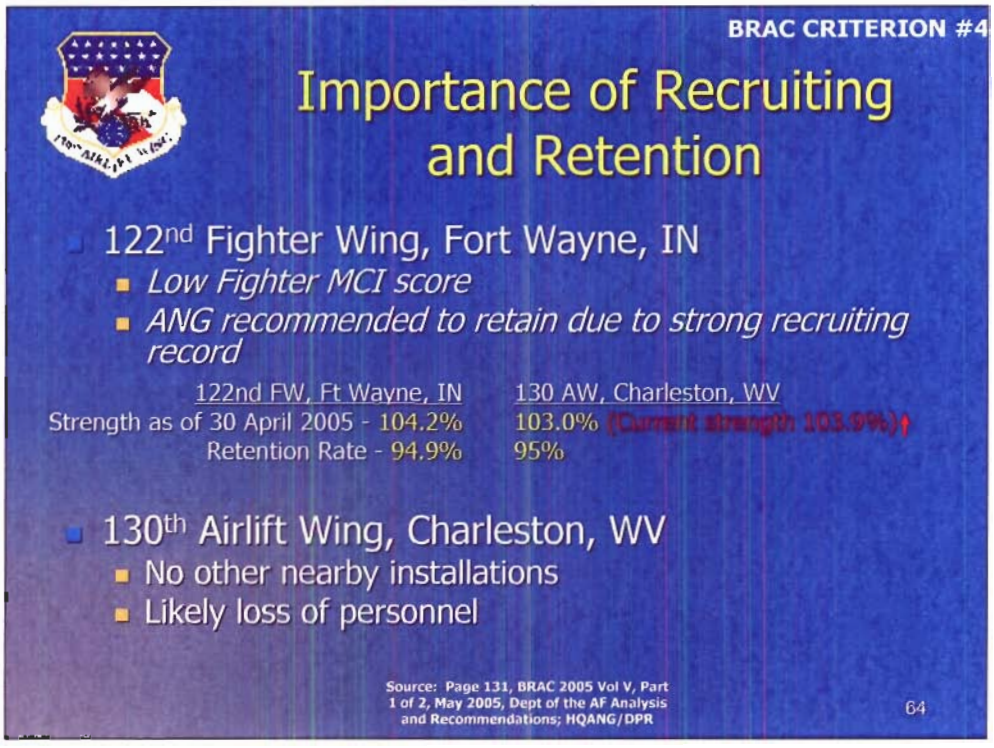
2	State	MPF	Enlisted			Officer			Overall TOTAL			Current Status	
3			Auth	Asgn	Pct	Auth	Asgn	Pct	Auth	Asgn	Pct		
61	NY	H7	1256	1178	93.8%	240	236	98.3%	1496	1414	94.5%	Red	
62	HI	C5	2176	2083	95.7%	294	244	83.0%	2470	2327	94.2%	Red	
63	SC	L2	1112	1044	93.9%	132	125	94.7%	1244	1169	94.0%	Red	
64	NH	G6	859	809	94.2%	135	123	91.1%	994	932	93.8%	Red	
65	NJ	G7	1201	1120	93.3%	195	188	96.4%	1396	1308	93.7%	Red	
66	ID	C6	1259	1192	94.7%	183	153	83.6%	1442	1345	93.3%	Red	
67	MO	F8	1342	1277	95.2%	267	223	83.5%	1609	1500	93.2%	Red	
68	PA	K4	1522	1429	93.9%	263	230	87.5%	1785	1659	92.9%	Red	
69	NY	H8	1058	959	90.6%	240	239	99.6%	1298	1198	92.3%	Red	
70	AL	A2	1207	1118	92.6%	153	135	88.2%	1360	1253	92.1%	Red	
71	MS	F6	1402	1284	91.6%	215	204	94.9%	1617	1488	92.0%	Red	
72	MT	G3	980	904	92.2%	121	108	89.3%	1101	1012	91.9%	Red	
73	ME	E2	1068	963	90.2%	141	139	98.6%	1209	1102	91.1%	Red	
74	UT	M2	1354	1230	90.8%	189	171	90.5%	1543	1401	90.8%	Red	
75	VT	M3	914	825	90.3%	116	110	94.8%	1030	935	90.8%	Red	
76	NY	H4	771	700	90.8%	133	119	89.5%	904	819	90.6%	Red	
77	TN	L4	1133	1031	91.0%	248	210	84.7%	1381	1241	89.9%	Red	
78	DC	B9	1151	1030	89.5%	170	150	88.2%	1321	1180	89.3%	Red	
79	GA	C4	1391	1250	89.9%	200	170	85.0%	1591	1420	89.3%	Red	SAVANNAH
80	TX	L9	1039	922	88.7%	126	111	88.1%	1165	1033	88.7%	Red	
81	WA	M6	1009	889	88.1%	222	201	90.5%	1231	1090	88.5%	Red	
82	RI	K9	1104	984	89.1%	179	149	83.2%	1283	1133	88.3%	Red	QUONSET
83	GA	C3	1403	1247	88.9%	218	183	83.9%	1621	1430	88.2%	Red	
84	AL	A3	974	840	86.2%	125	118	94.4%	1099	958	87.2%	Red	
85	CT	B7	1072	932	86.9%	139	118	84.9%	1211	1050	86.7%	Red	
86	AK	A4	1330	1143	85.9%	250	221	88.4%	1580	1364	86.3%	Red	
87	DE	B8	888	758	85.4%	201	177	88.1%	1089	935	85.9%	Red	
88	MA	E7	979	838	85.6%	134	117	87.3%	1113	955	85.8%	Red	
89	CA	B3	1220	1033	84.7%	208	190	91.3%	1428	1223	85.6%	Red	
90	USVI	K8	67	59	88.1%	8	4	50.0%	75	63	84.0%	Red	
91	AK	A9	563	477	84.7%	110	86	78.2%	673	563	83.7%	Red	
92	TN	L5	1054	849	80.6%	126	117	92.9%	1180	966	81.9%	Red	
93	WY	N3	1074	865	80.5%	190	166	87.4%	1264	1031	81.6%	Red	CHEYENNE
94	MA	E5	1067	844	79.1%	136	106	77.9%	1203	950	79.0%	Red	
95	Grand TOTAL		95536	91817	96.1%	14574	13182	90.4%	110110	104999	95.4%		



The 130th Airlift Wing not only excels at personnel strength, but we also excel at retaining those valuable personnel. Here you see that when compared to all ANG C-130 units gaining additional aircraft, the 130th Airlift Wing has nearly the highest retention rate, and we are #2 by only 0.1 percent.



Even though criterion 4 is only worth 2.5% of the overall military value, this example illustrates the true importance of recruiting and retention. In this example, the 122nd Fighter Wing of the Indiana Air National Guard scored very low in the Fighter Mission Compatibility Indices, but the ANG recommended that the unit be retained anyway because of its record of recruiting and its proximity to other units to allow these experienced Airmen to remain available to the Indiana ANG.

Recommendation: *Realign Capital Airport Air Guard Station, Illinois. Distribute the 183d Fighter Wing's F-16s to the 122d Fighter Wing, Fort Wayne International Airport Air Guard Station, Indiana (15 aircraft). The 122d Fighter Wing's F-16s (15 aircraft) retire. The wing's expeditionary combat support (ECS) elements, the Illinois ANG State Headquarters and the 217th Engineering Installation Squadron remain in place. Realign Hulman Regional Airport Air Guard Station, Indiana. The 181st Fighter Wing's F-16s are distributed to the 122d Fighter Wing, Fort Wayne International Airport Air Guard Station, Indiana (nine aircraft) and retirement (six aircraft). The 181st Fighter wing's ECS elements remain in place. Realign Dane County Regional Air Guard Station/Truax Field, Wisconsin: Joe Foss Field Air Guard Station, South Dakota; Des Moines Air Guard Station, Iowa; Fort Wayne Air Guard Station, Indiana, and Lackland Air Force Base, Texas by relocating base-level F-110 intermediate maintenance to Capital, establishing a Centralized Intermediate Repair Facility (CIRF) at Capital for F110 engines.*

We at the 130th Airlift Wing agree completely with Gen. Jumper, Air Force Chief of Staff, when he stated back in March – "People are our most valuable asset." If that is indeed the case, we don't understand why it is only worth 2.5% of the overall military value.

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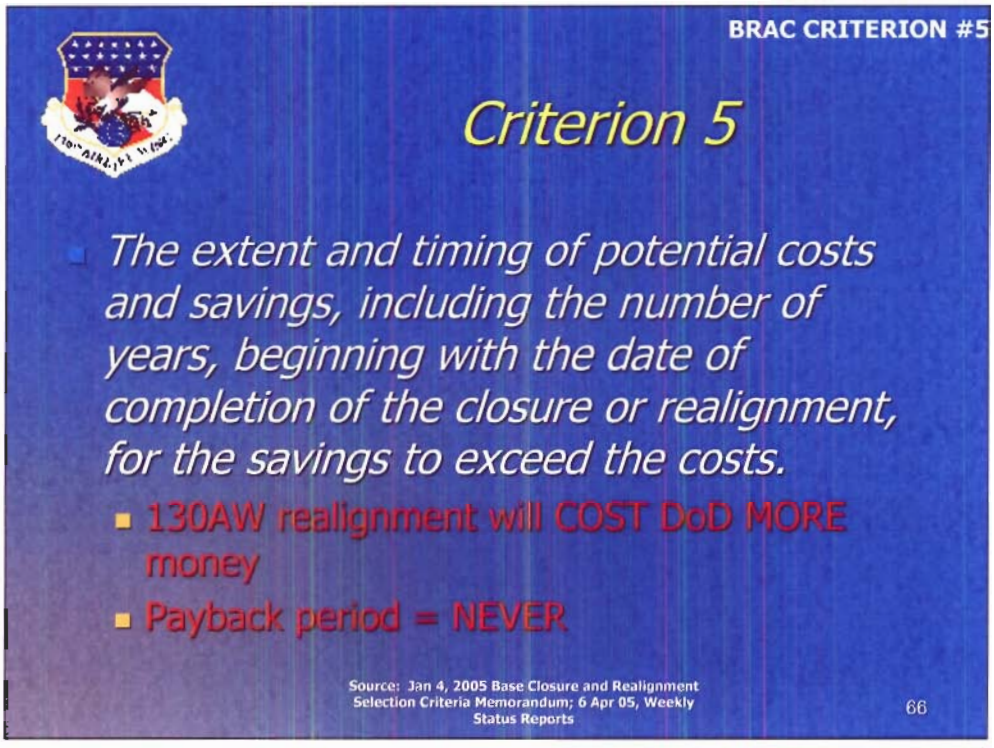
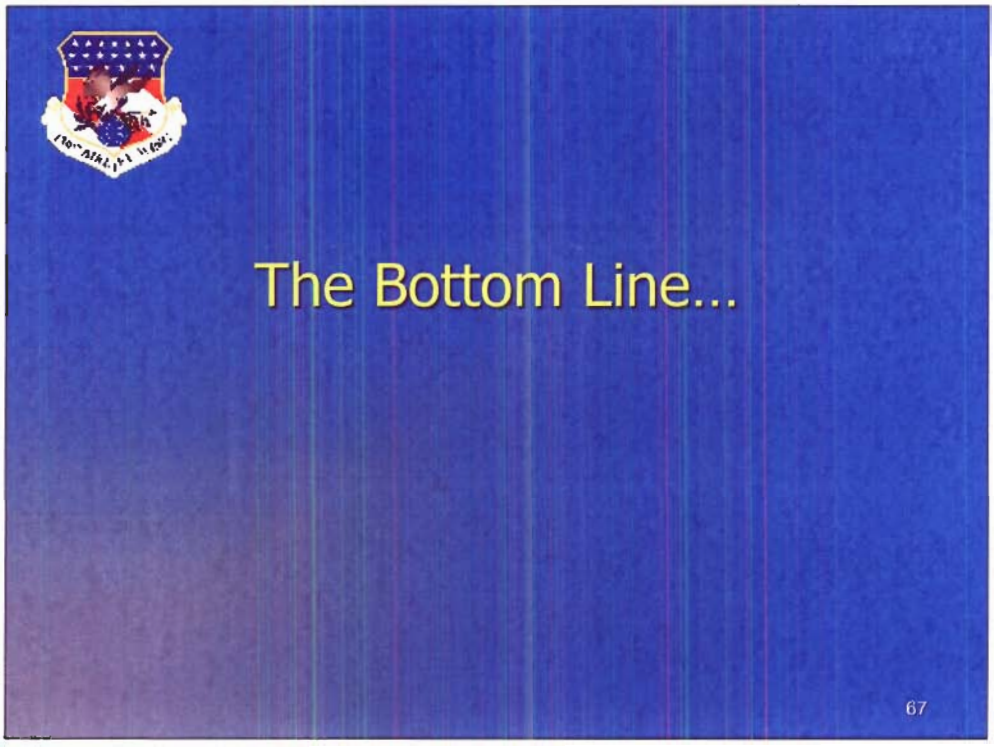
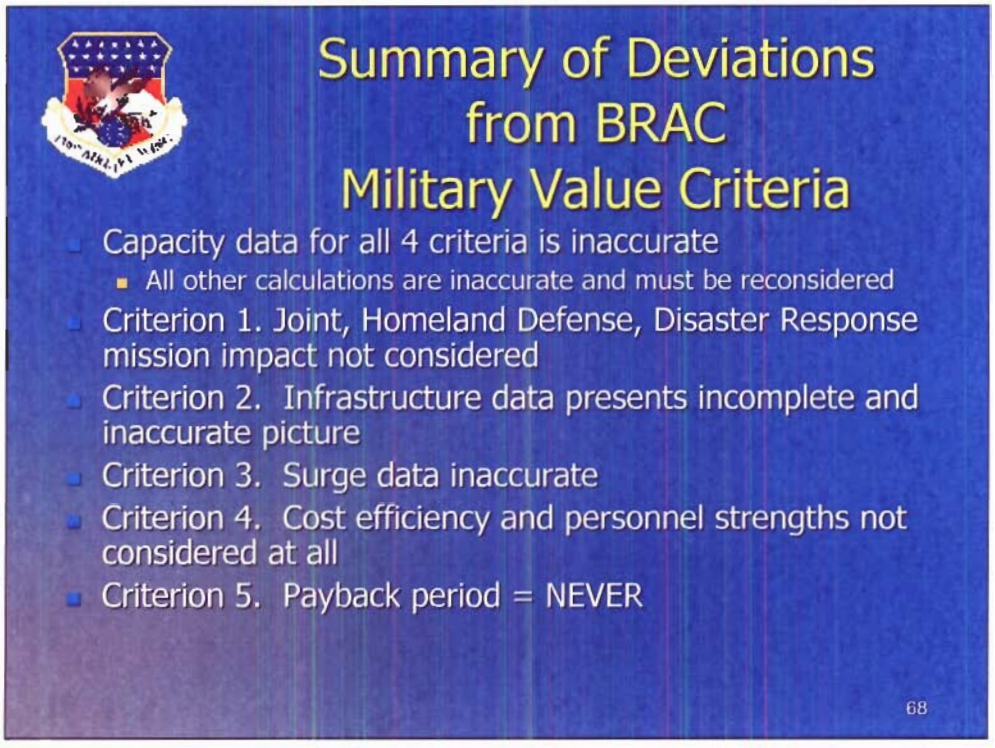
by Staff Sgt. Andrea Knudson -U.S. Central Command Air Forces-Forward Public Affairs
3/3/2005 - **SOUTHWEST ASIA (AFPN)** -- Air Force Chief of Staff Gen. John P. Jumper made time to visit two forward-deployed locations recently during a trip to the region for the Middle Eastern Air Symposium.
He received an operations update at U.S. Central Command Air Forces-Forward headquarters at one location, before visiting top performers assigned to the 380th Air Expeditionary Wing at another. At the headquarters, Lt. Gen. Walter E. Buchanan III, CENTAF commander, and other leaders briefed General Jumper on current activities and high-visibility programs across their area of responsibility. Of special interest were presentations on the use of airlift to mitigate ground convoy casualties in Iraq's dangerous "Sunni Triangle" area, and airpower's support for security operations enabling the recent Iraqi elections. They also briefed support for the fledgling Iraqi Air Force.
CENTAF's mission is to furnish integrated airpower supporting operations Iraqi Freedom and Enduring Freedom as well as operations in the Horn of Africa. Its assets are drawn from joint and coalition forces and include fighter, airlift, tanker, intelligence, surveillance and reconnaissance aircraft. CENTAF forces have contributed significantly to ongoing operations supporting the war on terrorism, General Jumper said. "Look at most of the intelligence, the surveillance . . . the Predator and fighter sorties that are being flown, the unbelievable amount of tactical airlift every day moving things around . . . I think it's a pretty good impact. It's not only in Iraq, it's in Afghanistan. And what are the results? We've had two elections," he said. For Iraq's historic elections, General Buchanan said, "CENTAF helped create a safer environment by supporting Iraqi and coalition operations to detect, deter and disrupt terrorists. "We also enabled successful democratic elections by keeping combat aircraft over key hot spots and by transporting officials and ballots from the independent election commission for Iraq to and from critical polling areas," he said.
CENTAF people simultaneously protected crucial Iraqi infrastructure. Additionally, they provided security for coalition convoy missions and backed up ground troops in contact with enemy forces, officials said. Throughout U.S. Central Command this past year, CENTAF Airmen have flown about 70 fighter sorties and 30 intelligence, surveillance or reconnaissance missions daily. They have flown about 3,000 passengers, moved 400 to 500 tons of cargo and unloaded about 2 million pounds of fuel daily. Aircraft also flew injured people out of theater as needed and performed a variety of other specialized missions. CENTAF officials met the heavy demands of the latest air and space expeditionary force rotation and major Army and Marine troop rotations while increasing convoy relief to support supply operations. Since October, C-130 Hercules increased their daily tonnage 210 percent, officials said.
The contributions CENTAF Airmen have made to the war on terrorism and the corresponding humanitarian operations reflect just how important each team member is, officials said. "What you're doing is huge," General Jumper said. "It's going to make a difference for the whole world. **People are our most valuable asset**, and every person should recognize (he or she is) part of a bigger picture. "What we're demonstrating is the power of the vote -- democracy in action. And it's all because of the efforts of the Soldiers, Sailors, Airmen and Marines doing the nations' work."



Finally, with Criterion 5 our primary disconnect, as we have already stated, is that when examining the cost savings and payback period of this realignment recommendation it is clear that it will only cost DoD MORE money to do what we do at Yeager. Therefore, with a payback period of NEVER, there is insufficient justification is support of this recommendation.



So what does all of this mean? What's the bottom line?



First, incorrect capacity data eliminated Yeager AGS from consideration in future force structure. All other analysis was based on this incorrect data and must be reconsidered. With criterion 1, our joint, homeland defense, and disaster relief missions were not adequately considered. For criterion 2, the data was skewed significantly in favor or large active duty bases and therefore does not present a complete nor accurate picture of the value of a installations infrastructure. For criterion 3 our surge data is inaccurate since it was based on incorrect capacity data. With criterion #4, it is clear that the cost efficiency and personnel strengths of the 130th Airlift Wing were not considered at all. Finally, with criterion #5 the payback period of never demonstrates that this realignment will not result in ANY cost savings to DoD.

#1

Incorrect capacity data eliminated Yeager AGS from consideration in future force structure

Relocating 130AW C-130H3s with C-130H2s is counter to stated AF goal of increasing effectiveness and efficiency

AF BRAC process did not adequately consider or value ANG involvement in state missions and Federal Homeland Defense

130 AW ranks higher in MCI for Criterion #1 than several units receiving additional aircraft

#2

Criterion #2 results biased in favor of large Active Duty installations with long runways

Results are skewed

130 AW can park and operate 12 aircraft right now

Leased facility provides tremendous value to taxpayers

Yeager AGS airspace advantages are significant compared to other east coast C-130 bases

#3

Incorrect capacity data used for the 130 AW invalidates results of surge capacity analysis and must be recalculated

Consider existing capacity to park 12 C-130s

Consider use of adjacent taxiway and runway – at no cost

130 AW ranks higher in MCI for Criterion #3 than several units receiving additional aircraft

#4

Quantitative and qualitative cost and personnel factors were not considered because of elimination from consideration due to incorrect capacity data

130 AW more cost efficient than other units receiving additional aircraft

Air Force and DoD will likely lose significant number of trained, experienced personnel

130 AW ranks higher in MCI for Criterion #4 than several units receiving additional aircraft

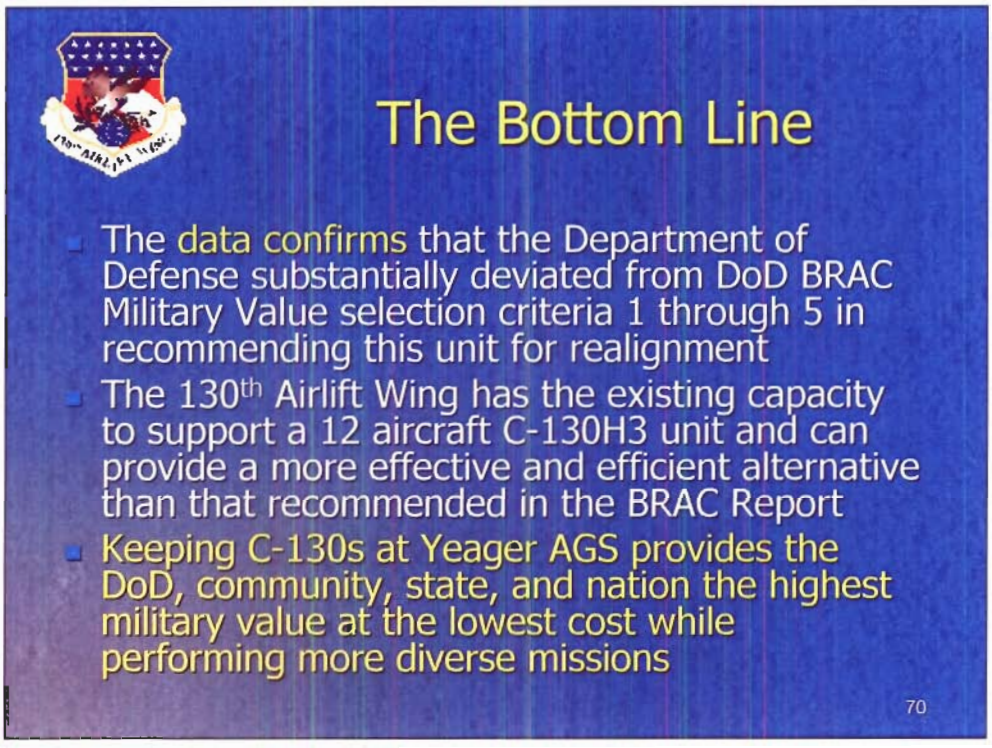
#5

Payback period for this realignment = NEVER

Therefore we request that the BRAC Commission reject the DoD recommendation to realign the 130th Airlift Wing and instead evaluate us as a potential receiving location using our TRUE military value that we've discussed today.

Higher Mission Compatibility Indices (MCI) for 3 out of 4 criteria
Support 12 aircraft with existing infrastructure for $1 per year at no additional cost with no limitations
Lowest operating and maintenance costs
Lowest cost per flying hour
2nd lowest cost of living
Highest personnel strength
2nd Highest retention
Highest mission capability rates
Less congested training airspace

These are the TRUE measures of the military value of the 130th Airlift Wing and this is what should have been used as the primary basis for any realignment recommendation.



The data that we have provided confirms that the Department of Defense substantially deviated from the BRAC selection criteria 1, 2, 3, 4 and 5 in recommending the 130th Airlift Wing for realignment.

Not only does the 130th Airlift Wing have the existing capacity to expand to 12 aircraft, but it can support them in a manner that provides a MORE effective and MORE efficient alternative to that recommended in the BRAC report.

Keeping C-130s at Yeager AGS provides the Department of Defense, the community, state and nation the highest military value at the lowest cost while performing more diverse missions.

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(FOUO slides are labeled)

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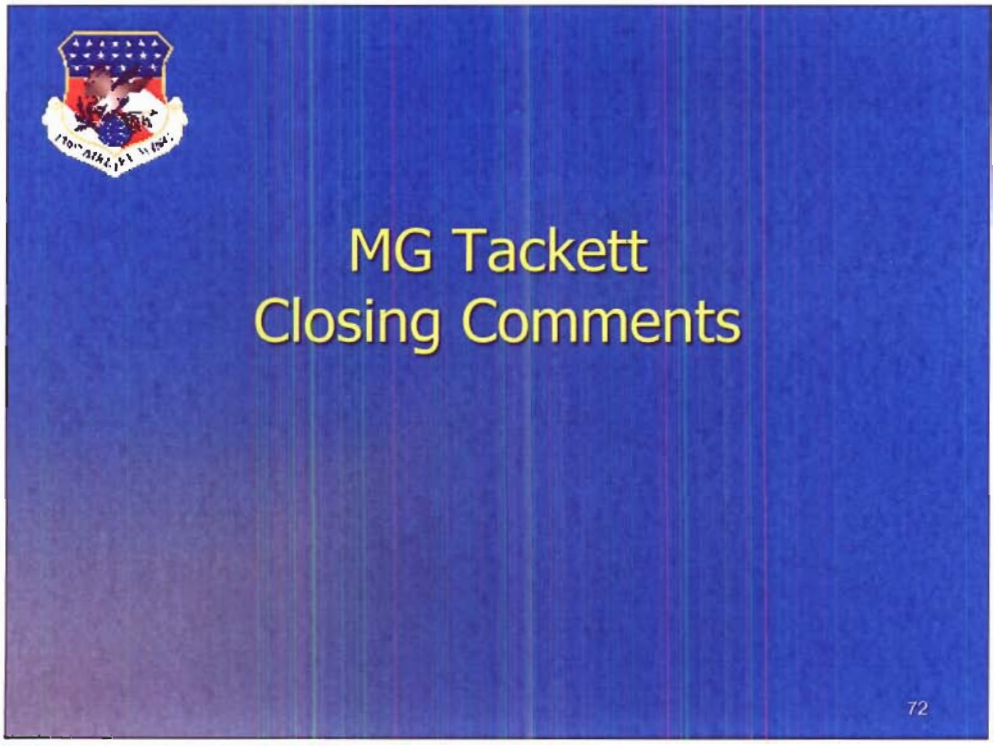


That concludes my portion of the briefing. Now I'll turn it over to Major General Tackett for closing comments followed by a question and answer session.

W.VA. AIR NATIONAL GUARD
DEPARTMENT OF DEFENSE
DEPARTMENT OF THE AIR FORCE
AIR NATIONAL GUARD
STATE OF WEST VIRGINIA

Questions?

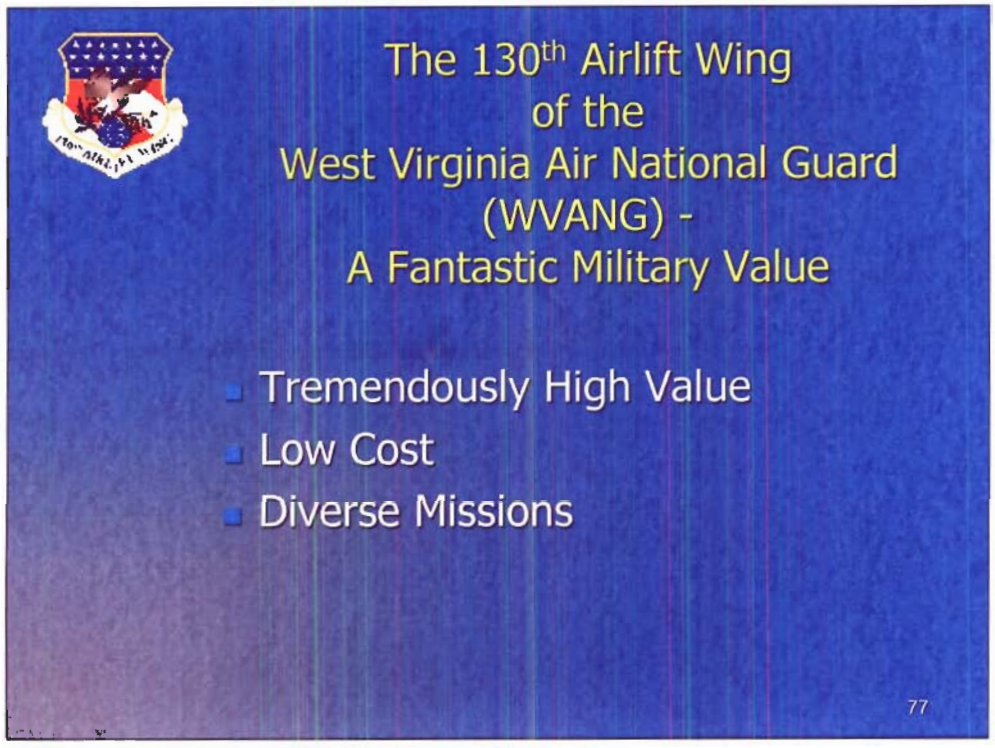
Backup Slides

75

130th Airlift Wing Existing Ramp Capacity

- We CAN park 12 aircraft right now

Source: Existing 130th Airlift Wing Apron Parking Plan



The primary consideration throughout the BRAC process for each installation is MILITARY VALUE. Today you will see that the men and women of the 130th Airlift Wing provide fantastic military value to United States while operating at a lower cost and performing more diverse missions.

Tremendously High Value

- Highly Trained / Combat Proven
  - Iraq/Afghanistan/Bosnia/Colombia
- Highly Experienced
  - Stable Force with incredible continuity
- Highly Motivated
  - A Volunteer Force that wants to serve
- Great Facilities
- Great Equipment
- Strategic Location

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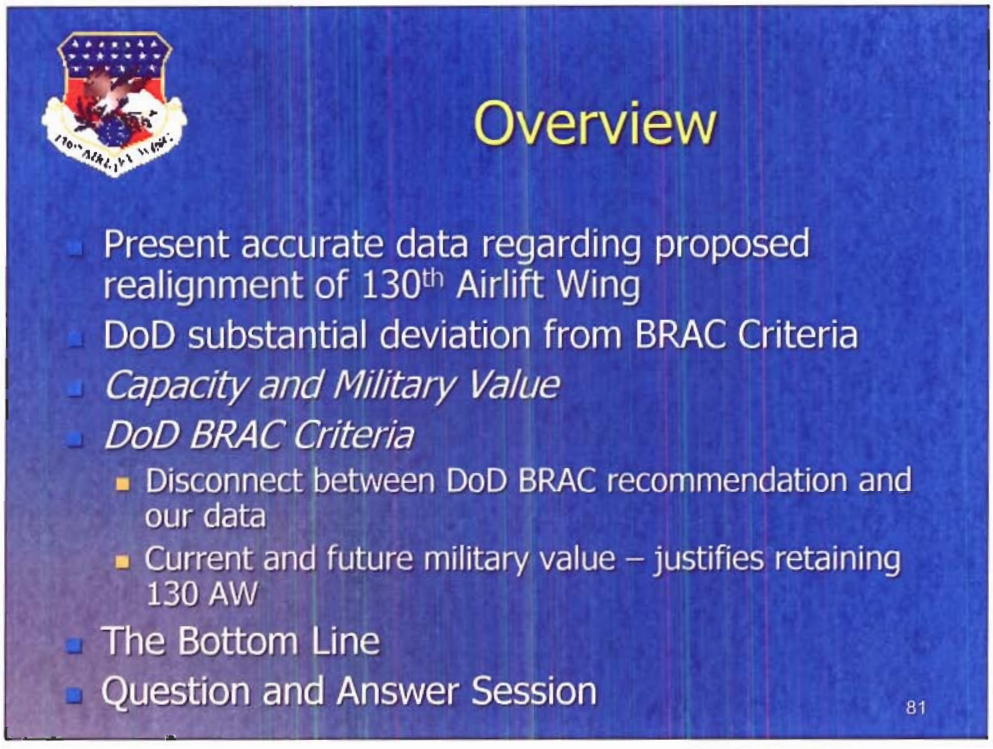
Low Cost

- Part-time force = significant savings
- Infrastructure provides significant cost savings
  - Leased Space
  - Shared Facilities with Commercial Airport

A key benefit of the Air National Guard (ANG) is that in addition to the federal missions performed by the active duty and the reserves, we also have a vital state and community mission. We also play a critical role in homeland defense, not just to the nation but also to the citizens of WV.

We perform many important missions across a broad spectrum of conflict throughout the world. What makes this possible is that we have earned the grass roots support of the citizens of our state, our employers, our family, and our friends. This creates a strong bond that gives the Department of Defense the base of support that it needs to perform these missions around the world.



This briefing will provide accurate and complete data for the Commission to consider regarding the proposed realignment of the 130th Airlift Wing.

This briefing provides information to correct and supplement the data used in making that recommendation.

The approach that I will take to presenting this information is to first focus on Capacity and Military Value.

Then I will review the impact of capacity on Military Value Criteria 1-4 using both the DoD BRAC Criteria as well as the associated Air Force specific criteria.

Then I will show the disconnect between our data and the realignment recommendation.

Finally I will conclude with a summary of our findings followed by closing comments from MG Tackett and a question and answer session.

BRAC Law

- *MILITARY VALUE AS PRIMARY CONSIDERATION. – The selection prepared by the Secretary shall ensure that military value is the primary consideration in the making of recommendations for the closure or realignment of military installations under this part in 2005.*
  - *As required by statute, the military value of an installation or activity was the primary consideration in developing the Department's recommendations for base realignments and closures. (DoD)*

Source: Page 37, Defense Base Closure and Realignment Act of 1990, Amended FY03; Page 21, Base Closure and Realignment Report, Vol I, Part 1 of 2, May 2005

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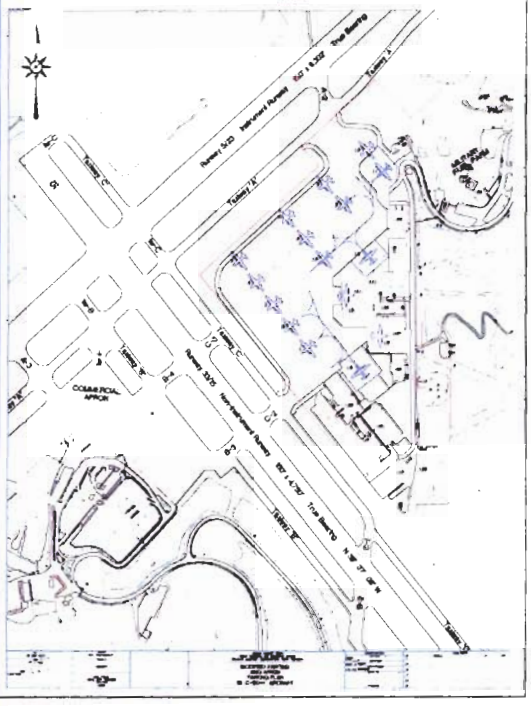
CAPACITY ANALYSIS

- Ramp Expansion Capability
  - 16 aircraft



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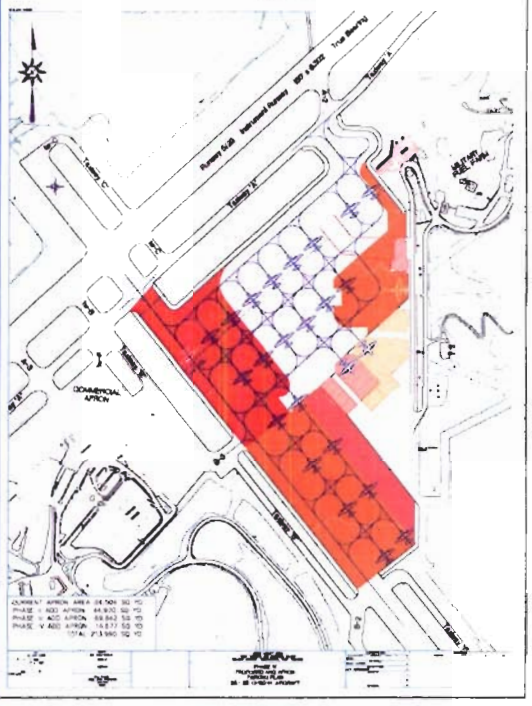
CAPACITY ANALYSIS

- Potential capacity
  - 24 aircraft



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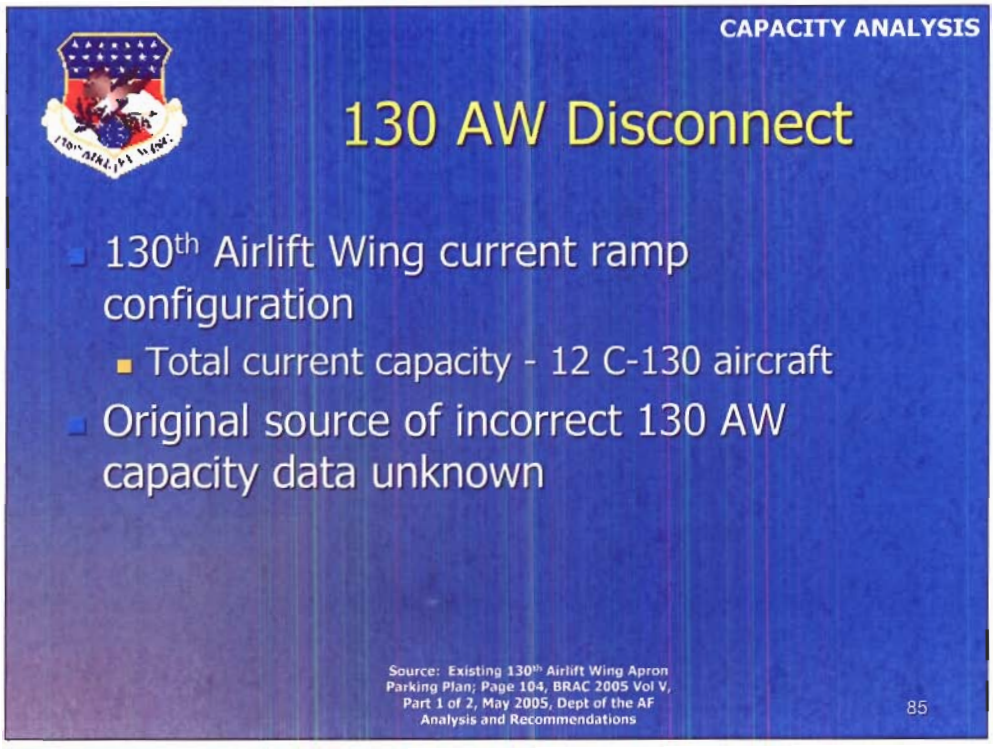
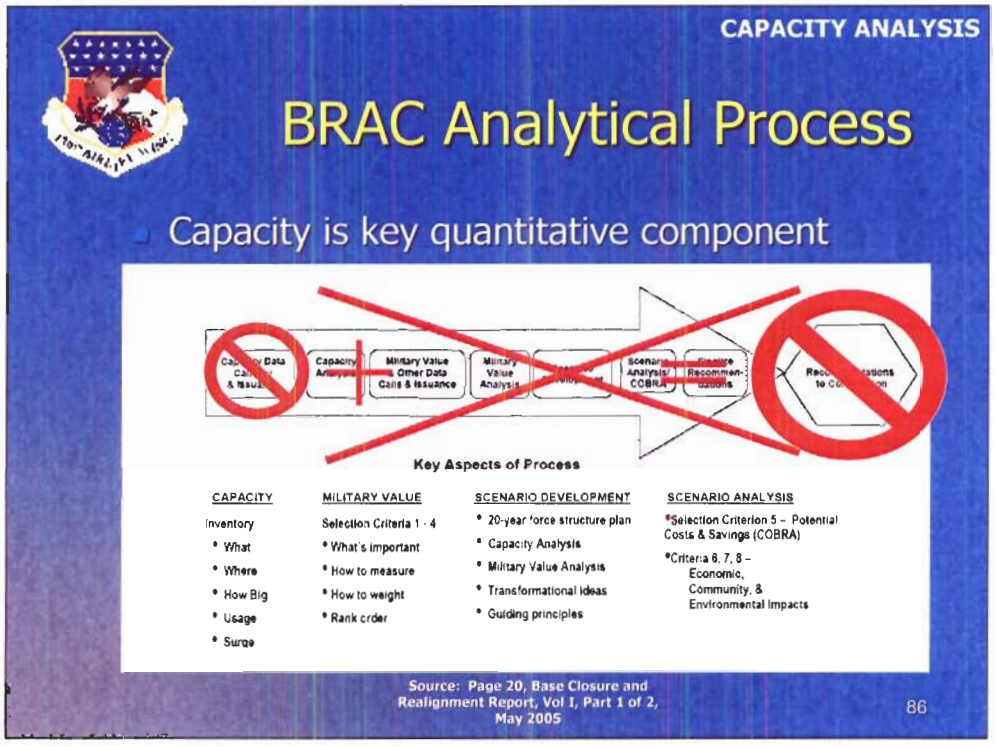
Source: 130th Airlift Wing Master Plan

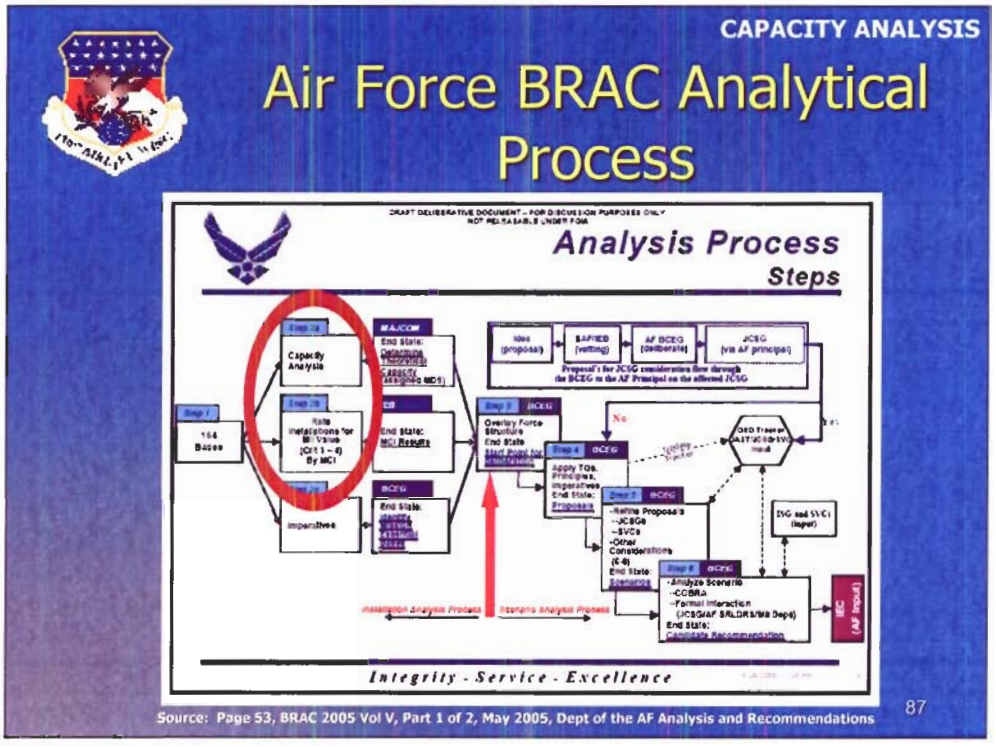


Our primary disconnect between the BRAC realignment recommendation and our data is that the report claimed that we cannot support more than 8 aircraft. This is not true. Our ramp is currently configured for parking 12 C-130 aircraft, an entire reserve size squadron based on the new force structure.

While we do not know where the ANG received its data regarding the 130th Airlift Wing, we DO know that the data that they used is INCORRECT.



So, what does all of this mean? What it means is that since capacity data is the key initial quantitative building block that all remaining BRAC analysis is built on, if that capacity data is not accurate, then all of the follow-on analysis used to determine Military Value is not accurate. If the BRAC analysis on Military Value is not accurate, then the final recommendation cannot be accurate.

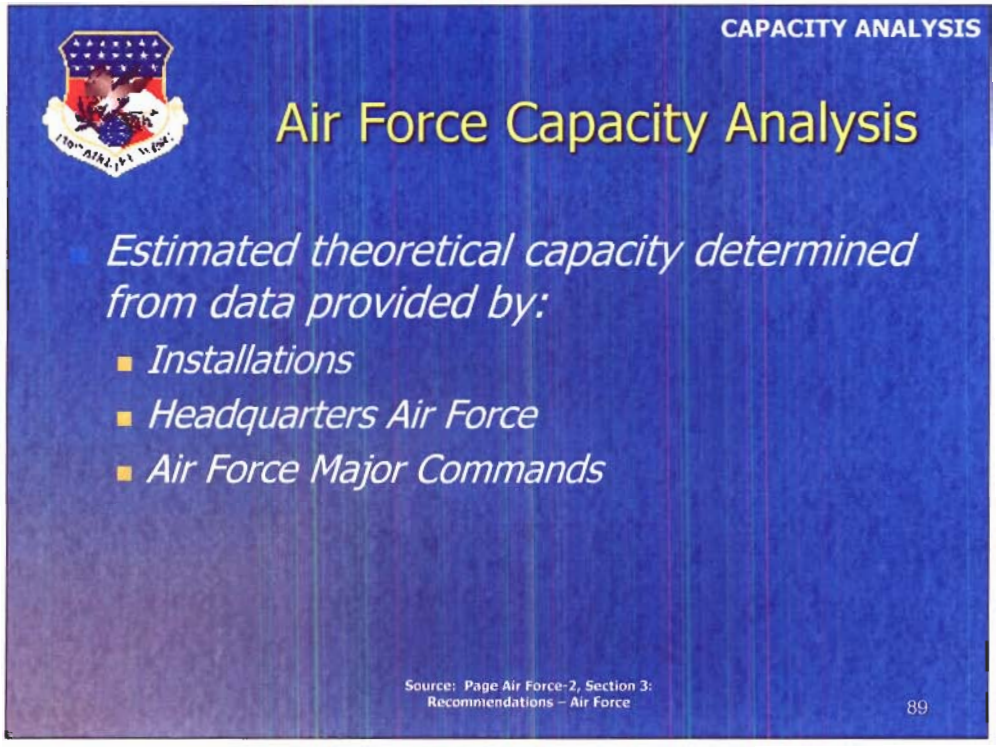


Capacity analysis was therefore a key component in the Air Force BRAC analytical process, including in determining the Mission Compatibility Indices (MCI) – the method that the Air Force used to attempt to quantify military value.

Air Force BRAC Strategy

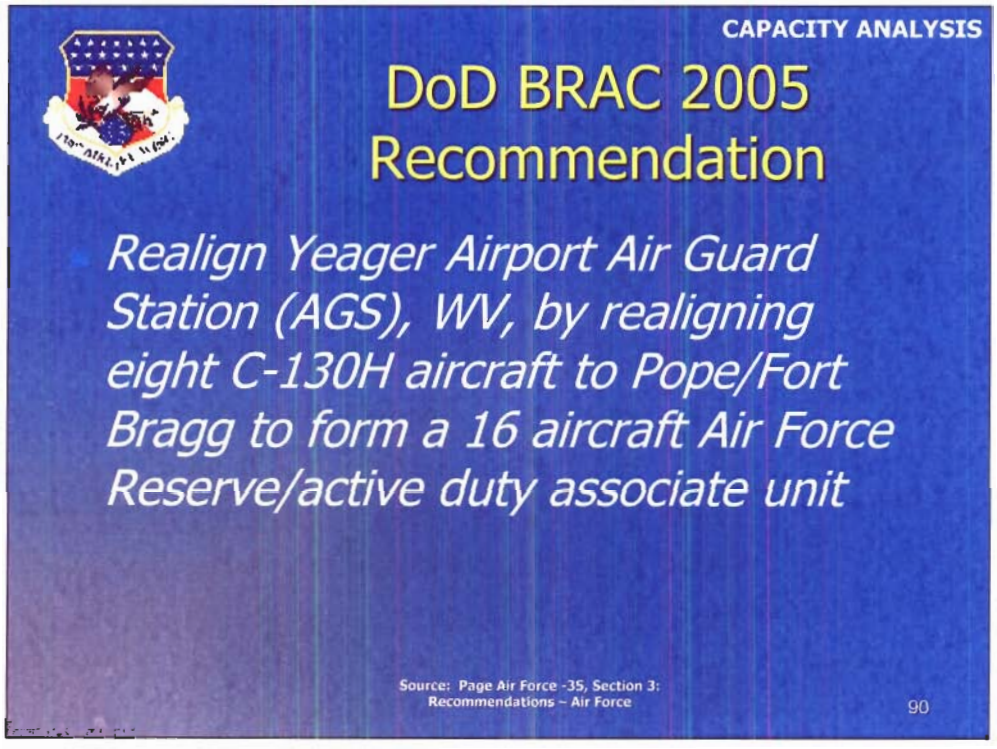
- *1. Consolidate declining fleet into fewer, larger units—at installations of high military value*
- *2. Organize remaining force structure into more effective fighting units*
- *3. Retain the experienced and skilled Airmen the Air Force needs*

Source: Page i BRAC 2005 Vol V, Part 1 of 2, May 2005, Dept of the AF Analysis and Recommendations



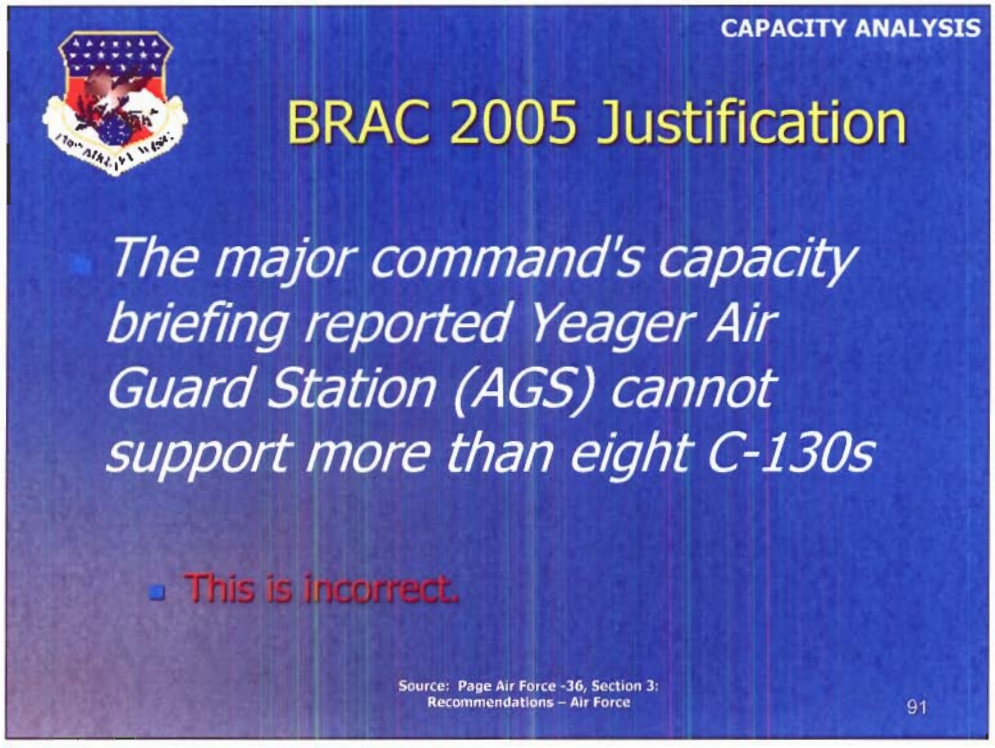
In order for the Air Force to determine which installations were capable of basing squadrons of this size, they performed a capacity analysis. The Air Force stated that they estimated theoretical capacity using a variety of data sources including data provided by installations, Headquarters Air Force, and by the Air Force Major Commands.

The Air Force estimated the theoretical capacity of each installation using data collected from its installations, other data available at Headquarters Air Force, and weapons system templates provided by the Air Force Major Commands. These templates detailed operational and support capabilities required to host the major weapons systems.



Based on this incorrect capacity data, the recommendation was made to realign the 8 C-130s at Yeager AGS and relocate them to Pope AFB/Fort Bragg.

Realign Yeager Airport Air Guard Station (AGS), WV, by realigning eight C-130H aircraft to Pope/Fort Bragg to form a 16 aircraft Air Force Reserve/active duty associate unit, and by relocating flying-related expeditionary combat support (ECS) to Eastern West Virginia Regional Airport/Shepherd Field AGS (aerial port and fire fighters).



Since the ANG's capacity data for Yeager claimed that the 130th could not support more than 8 C-130 aircraft, this meant that when considering units for consolidation into larger, 12 to 16 aircraft squadrons, the 130th Airlift Wing was eliminated from consideration at the very beginning of the process. The point we want to make is that this data is INCORRECT.

The major command's capacity briefing reported Pittsburgh ARS land constraints prevented the installation from hosting more than 10 C-130 aircraft and Yeager AGS cannot support more than eight C-130s. Careful analysis of mission capability indicates that it is more appropriate to robust the proposed airlift mission at Fort Bragg to an optimal 16 aircraft C-130 squadron, which provides greater military value and offers unique opportunities for Jointness.

DRAFT DELIBERATIVE DOCUMENT - FOR DISCUSSION PURPOSES ONLY
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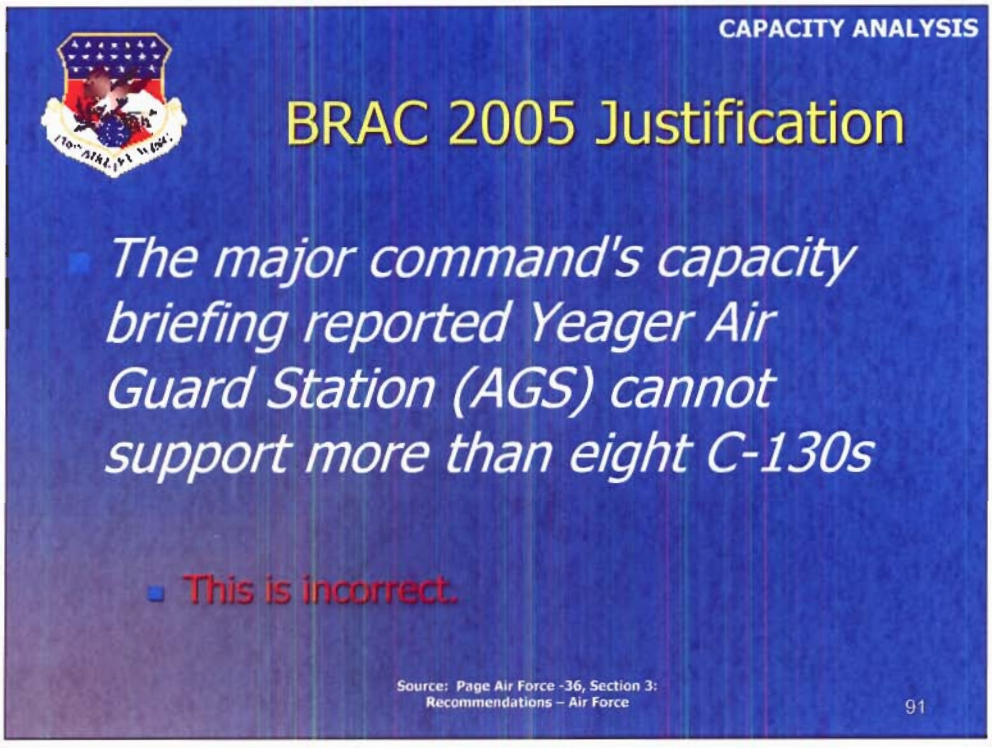
Air National Guard

Phase II Capacity Analysis

24 August 2004

U.S. AIR FORCE

Integrity - Service - Excellence



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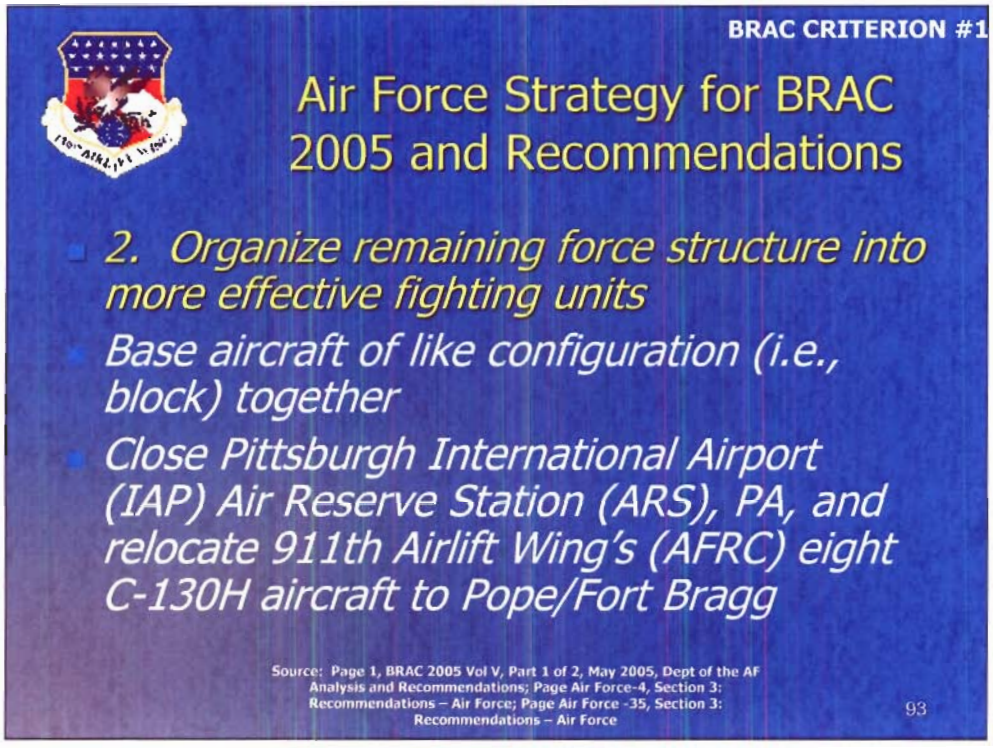
This is the data provided by the Air National Guard for use in that capacity analysis.



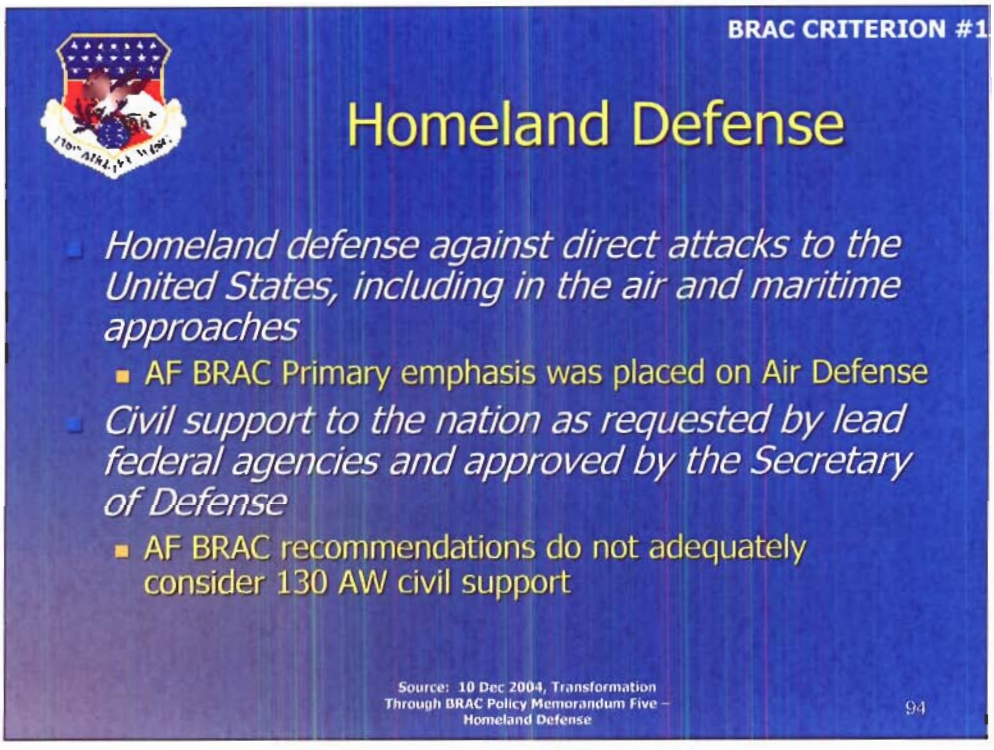
Earlier we talked about how the first element of the Air Force BRAC Strategy was leading to consolidating aircraft into larger units. Now we'll examine the second element of this strategy which is to organize the remaining units into more effective fighting units.

Air Force BRAC documentation states that one pattern you will see in their recommendations is that aircraft of like configuration (model, or block) will be based together.

This is important because the other key part of the recommendation to realign Yeager is the realignment of Pittsburgh Air Reserve Station's 8 C-130H aircraft to Pope AFB/Fort Bragg to form a 16 aircraft unit.

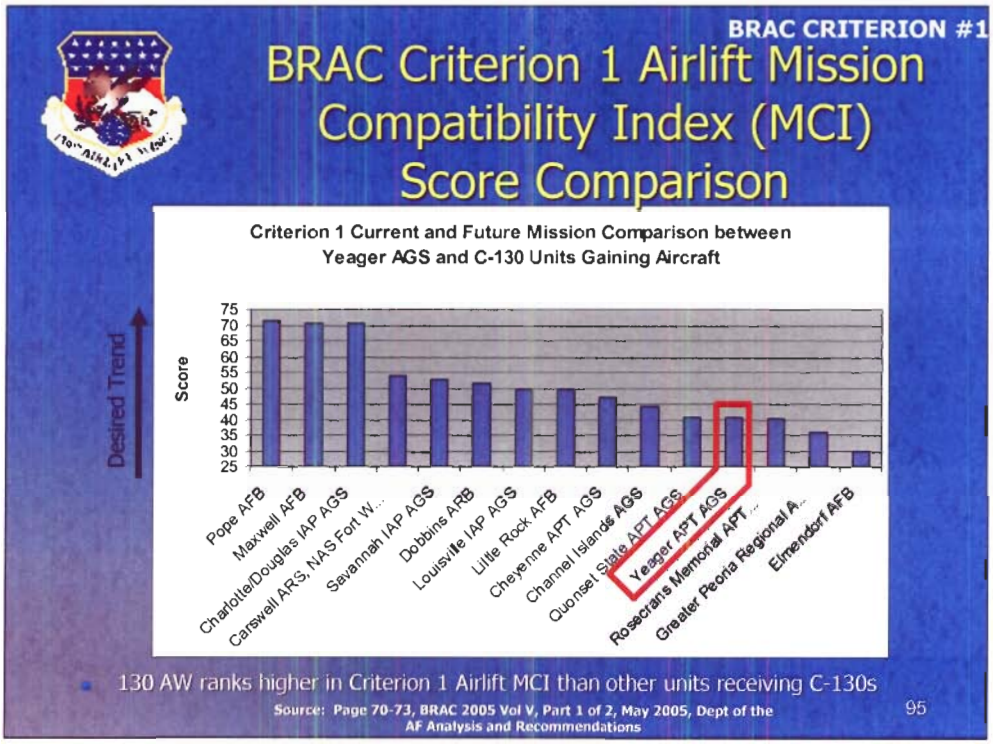
The following patterns emerge from the Air Force's recommendations:

> *Air Force flying units will be restructured into a smaller number of fully equipped squadrons to increase operational effectiveness and efficiency. In the process, aircraft of like configuration (i.e., block) will be based together.*



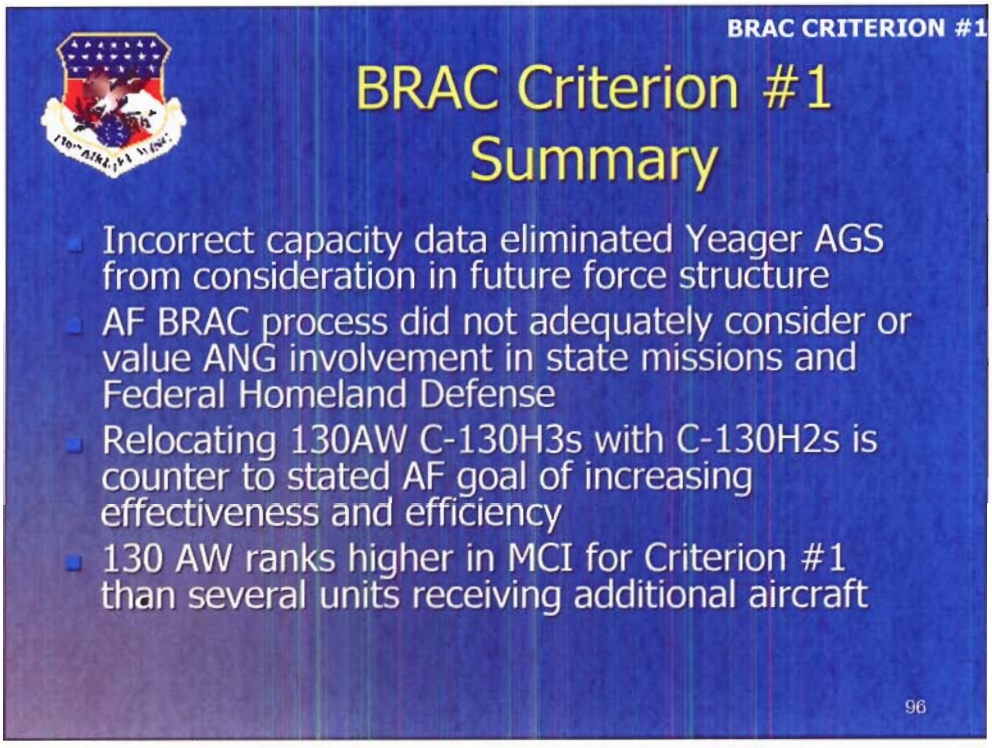
Another critical "Joint" mission that the 130th Airlift Wing performs is Homeland Defense. Although BRAC guidance required consideration of civil support to the nation, the Air Force seemed to only focus on the Air National Guard Air Defense mission when making their analysis and recommendations. Therefore the 130th's contribution to Civil Support was not considered when determining our military value.

The Department's homeland defense mission has three major elements: homeland defense against direct attacks to the United States, including in the air and maritime approaches; civil support to the nation as requested by lead federal agencies and approved by the Secretary of Defense; and enabling activities to improve national and coalition capabilities for homeland security, to include sharing expertise, technology, and training.



And finally with criterion #1, let's take a look at the Mission Compatibility Index scoring. The Mission Compatibility Index was the quantitative analysis that the Air Force used to determine how well units fit into the future force structure for a particular mission. It is divided up into the primary 4 BRAC criteria for determining military value plus an overall MCI score.

When compared to other C-130 units gaining aircraft as a result of BRAC, Yeager AGS actually ranks higher in Airlift Mission Compatibility Index for BRAC Criterion number 1 than several other units who are receiving aircraft.



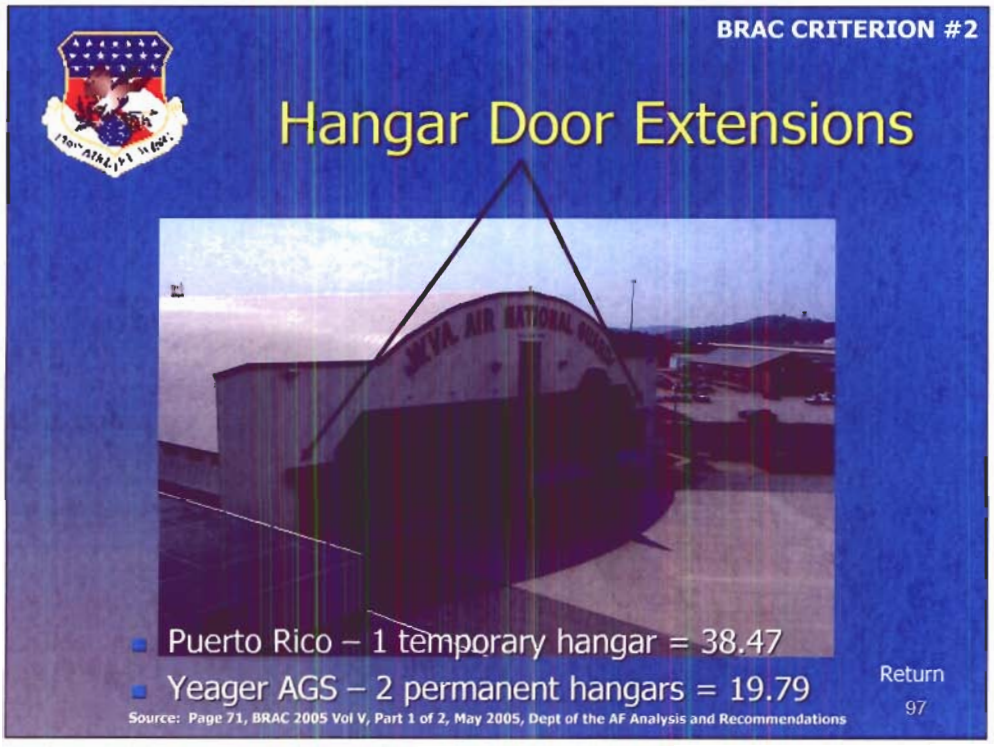
In summary for BRAC Military Value Criterion #1, these are the disconnects with the information used in making the realignment recommendation regarding the 130th:

Incorrect capacity data eliminated Yeager AGS from consideration in future force structure.

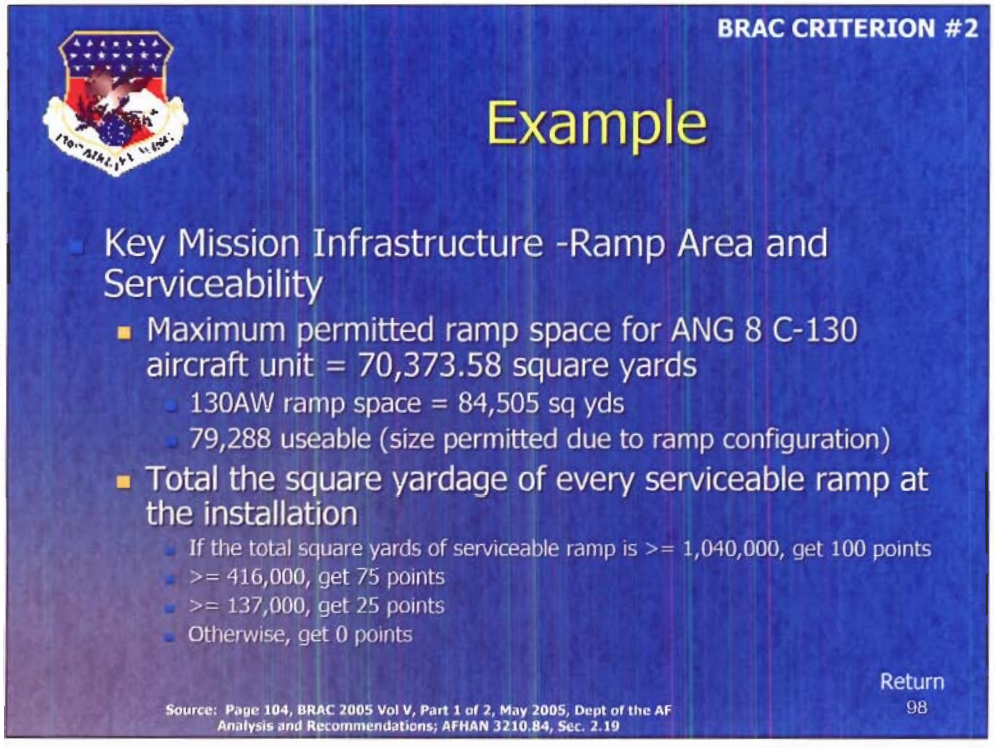
Relocating 130AW C-130H3s with C-130H2s is counter to stated AF goal of increasing effectiveness and efficiency.

AF BRAC process did not adequately consider or value ANG involvement in state missions and Federal Homeland Defense.

130 AW ranks higher in MCI for Criterion #1 than other units receiving additional aircraft.

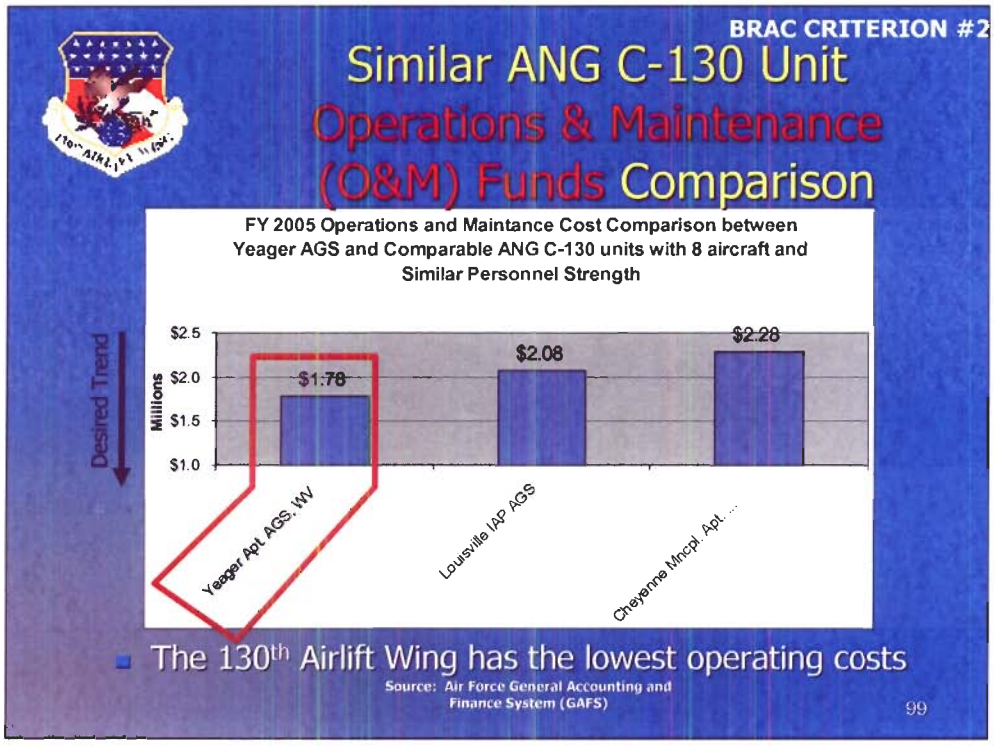


The 130th Airlift Wing turned in 130' for the BRAC data call, but we did not include the cutouts for the wings. This minor oversight resulted in a 0 point score for this hangar. Correction of this data improved our infrastructure MCI score by several points. Documentation for this has been provided. Another example would be the fact that the C-130 unit in Puerto Rico (Luis Munoz Marin IAP AGS) scored 38.47 on Criterion 2 for infrastructure even though they only have a temporary C-130 hangar while the 130th scored 19.79 despite having two permanent C-130 hangars.



ANGH 32-1084, 30 Nov 2003 –

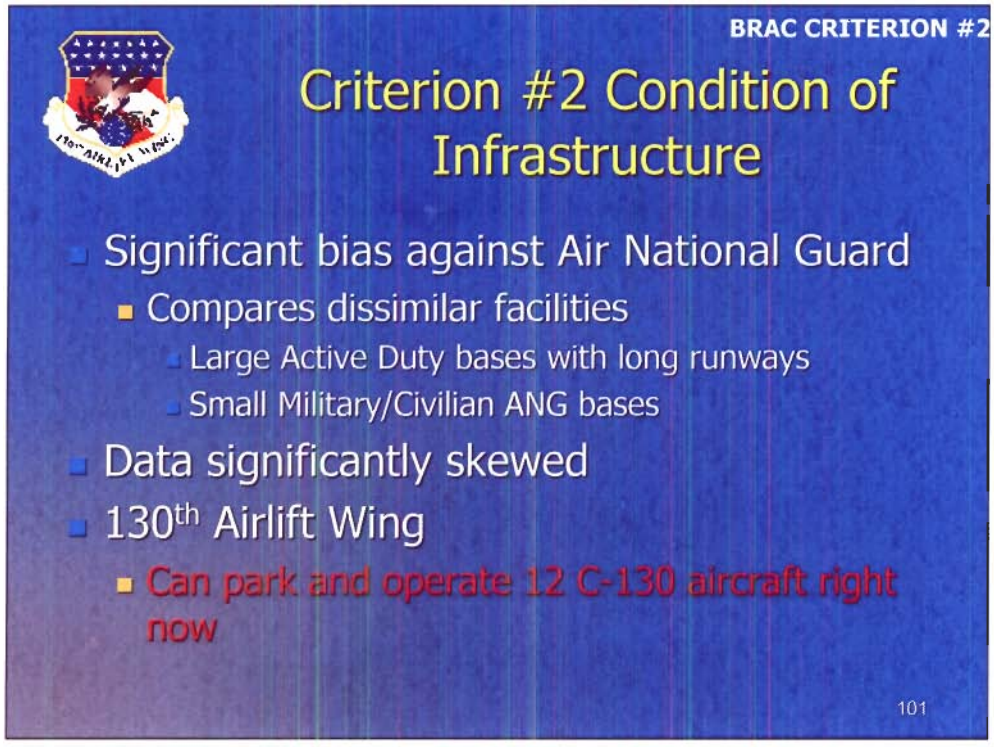
Page 7. Estimating new apron requirements. For broad planning purposes, multiply the wingspan of the selected aircraft by its length, then multiply the product by a factor of 5.3 to determine the apron requirement for a single unit of the aircraft chosen. Do not use this method to estimate the number of aircraft – especially large aircraft – that can park on an existing apron. Many variables (such as length, width, and taxi lane locations) determine an existing apron's suitability to support specific aircraft types. At existing bases, develop a conceptual parking plan for the anticipated mix of aircraft types to determine the total apron area requirements.



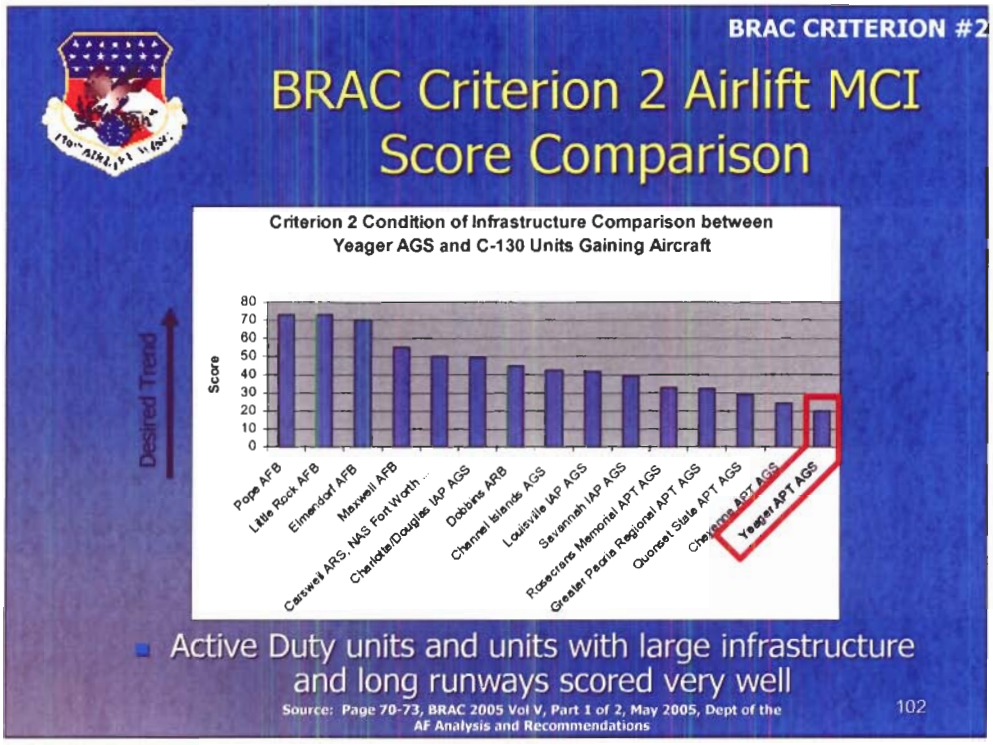
It's not just a claim we are making. The data supports it. Based on limited data available to us, we took a look at operations and maintenance costs of Yeager and compared them to comparable ANG C-130 units, including Cheyenne and Louisville who are supposed to receive additional aircraft. As you can see, Yeager AGS has the lowest costs. We did not have detailed data to perform a similar analysis with all units receiving aircraft, but we are confident that the results would show Yeager as one of the most cost efficient, if not THE most cost efficient unit.

We went further and compared our units cost per flying hour with other ANG C-130H units who are gaining aircraft through BRAC. Once again, that data confirms that the 130th Airlift Wing, with its minimal excess infrastructure, can provide the highest value at the lowest cost – per flying hour.

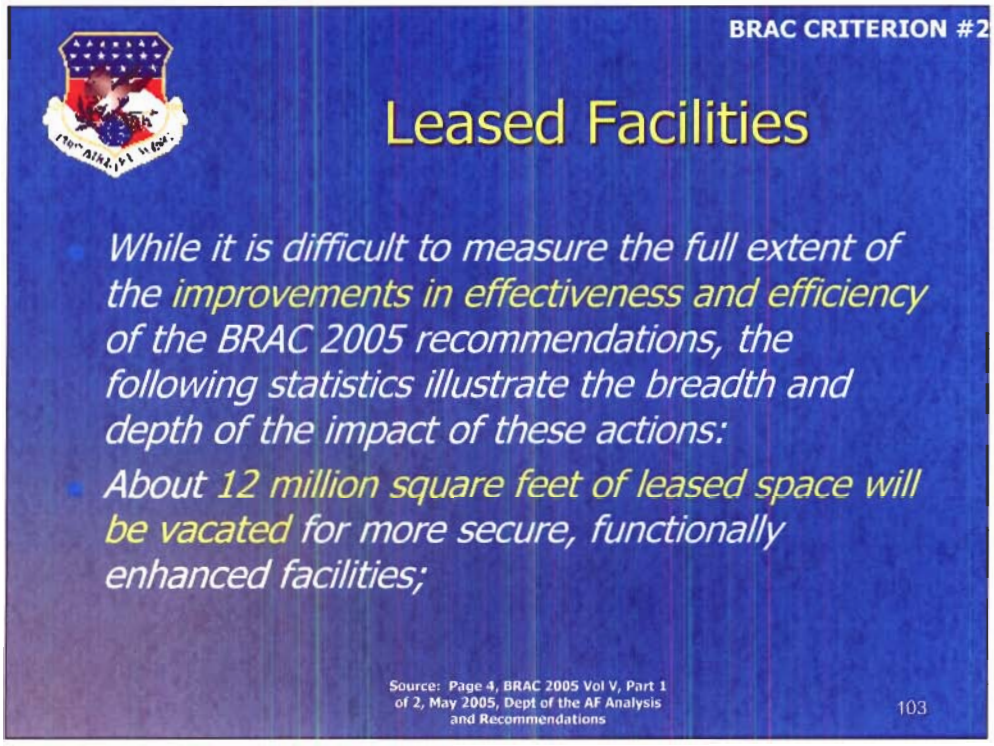
CPFH includes: PMEL, Fuel, Tools, Parts, Equipment, Latrine Service, etc. All consumable items directly related to aircraft, aircraft maintenance and the production of sorties and/or flying operations are CPFH expenses. Additionally, aircrew gear/equipment required to perform aircrew duties are CPFH expenses. All items that fall in these categories, whether they are on the aircraft or stored off the aircraft are CPFH expenses. Further, some Non-Fly Aviation Fuel (AVFUEL) used in support of flying operations is a CPFH expense. Items in the FSG Exclusion list are not authorized to be bought in the flying hour program. In the FM Guidance is a statement regarding permanently Waived Items.



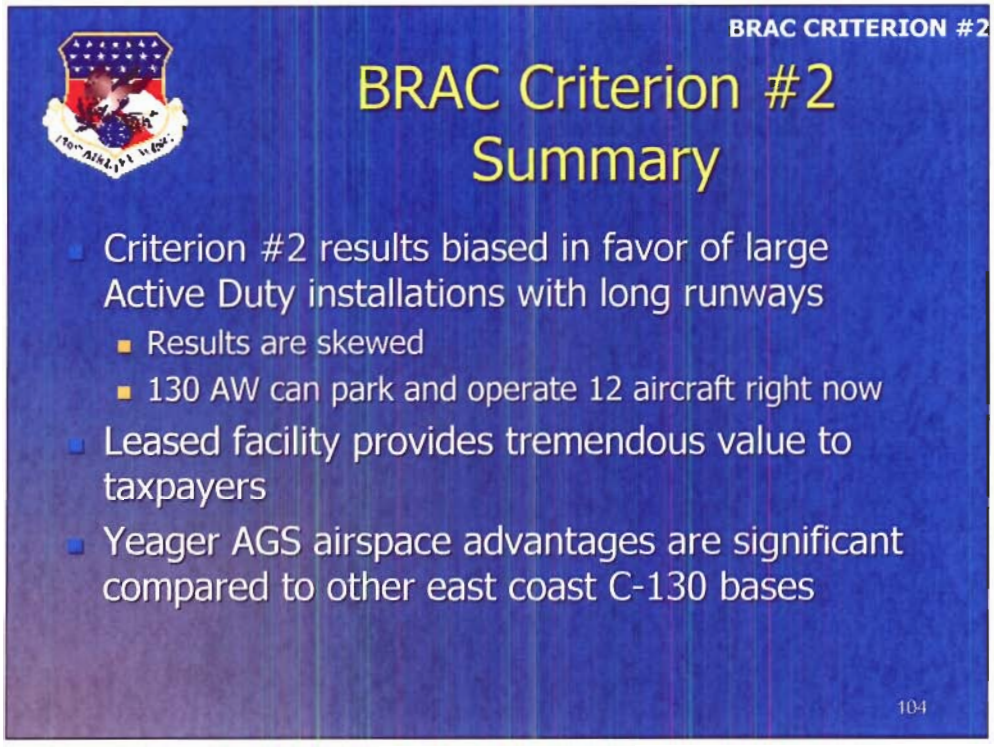
In summary, the results of the data collected for Criterion 2 shows a significant bias against the Air National Guard. It compares dissimilar facilities. Large active duty bases with long runways vs. small ANG bases at military/civilian airports. The end result is data that is significantly skewed. Regardless of what the data shows for criterion number 2, the 130th Airlift Wing can park and operate 12 C-130s right now using our existing infrastructure at no additional cost.



If we look at the Mission Compatibility Index for Criterion #2 we'll see that Yeager AGS scored lower than other units receiving C-130 aircraft as a result of BRAC. One important point we want to make is how extremely well the large active duty bases with long runways scored in this area compared to Air National Guard facilities located at combined civil/military airports.



Another key point dealing with infrastructure deals with leased space. The DoD stated that one of their significant improvements in effectiveness and efficiency was the elimination of up to 12 million square feet of leased space. The 130th Airlift Wing is part of this leased space savings.



In summary for BRAC Military Value Criterion #2, these are the disconnects with the information used in making the BRAC determination:

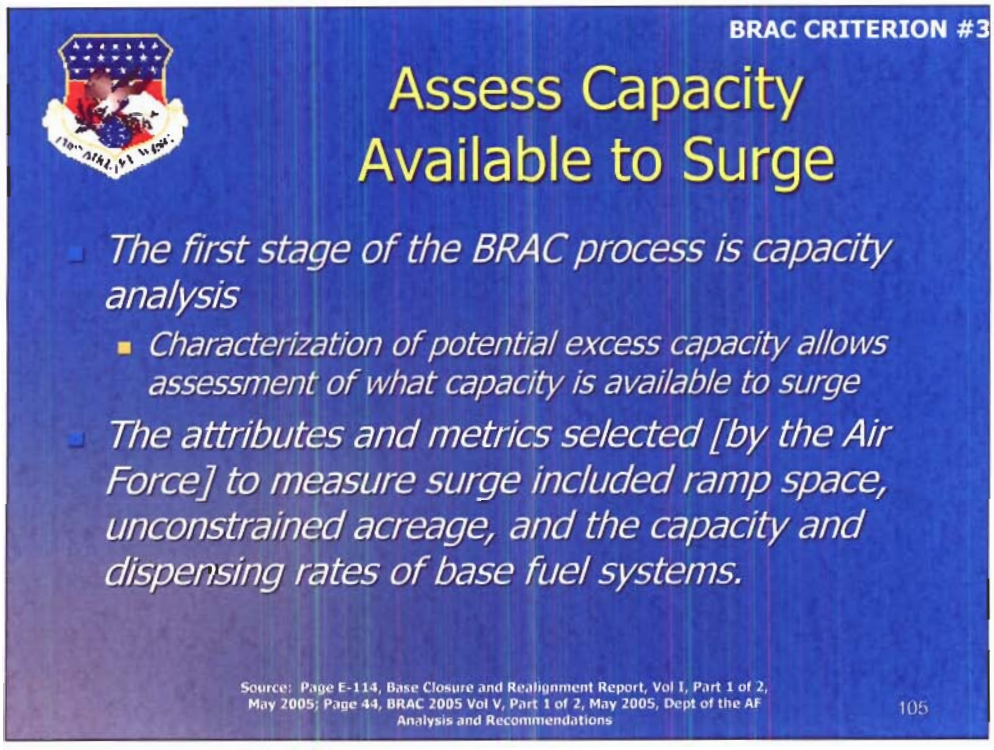
Criterion #2 results biased in favor of large Active Duty installations with long runways

Results are skewed

130 AW can park and operate 12 aircraft right now

Leased facility provides tremendous value to taxpayers

Yeager AGS airspace advantages are significant compared to other east coast C-130 bases

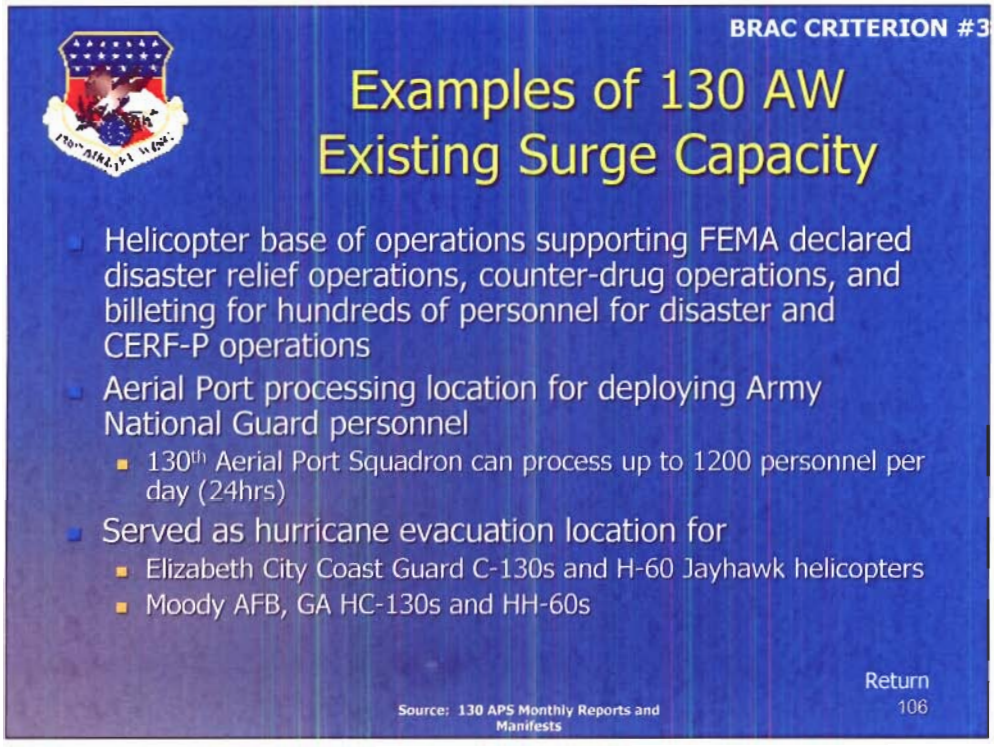


The problem that we have in Criterion # 3 pertains to surge capacity. As we've discussed before, the first stage of the BRAC process is capacity analysis. Characterization of potential excess capacity allows an assessment of what capacity is available to surge. I would add that using CORRECT capacity information is what allows assessment of TRUE surge capacity. The metrics that the AF used in measuring surge capability include some of these areas that we talked about in criterion 2 – ramp space, unconstrained acreage, and fuel systems.

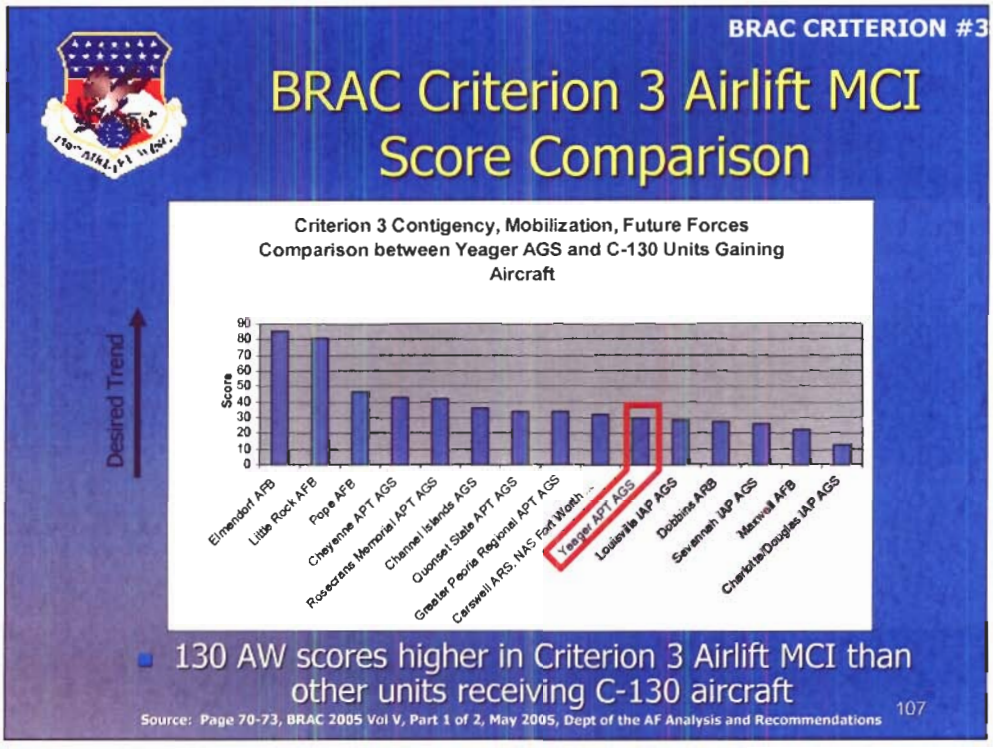
The first stage of the BRAC process, capacity analysis, includes common definitions for the functions that fall within the JCSG's or Military Departments' area of responsibility and metrics that will measure capacity. Characterization of potential excess capacity allows the JCSGs and Military Departments to assess what capacity is available to surge.

In aggregate the Air Force recommendations reduce excess flightline infrastructure by 37% while still leaving 5.4 million square yards of ramp space for surge and emerging missions.

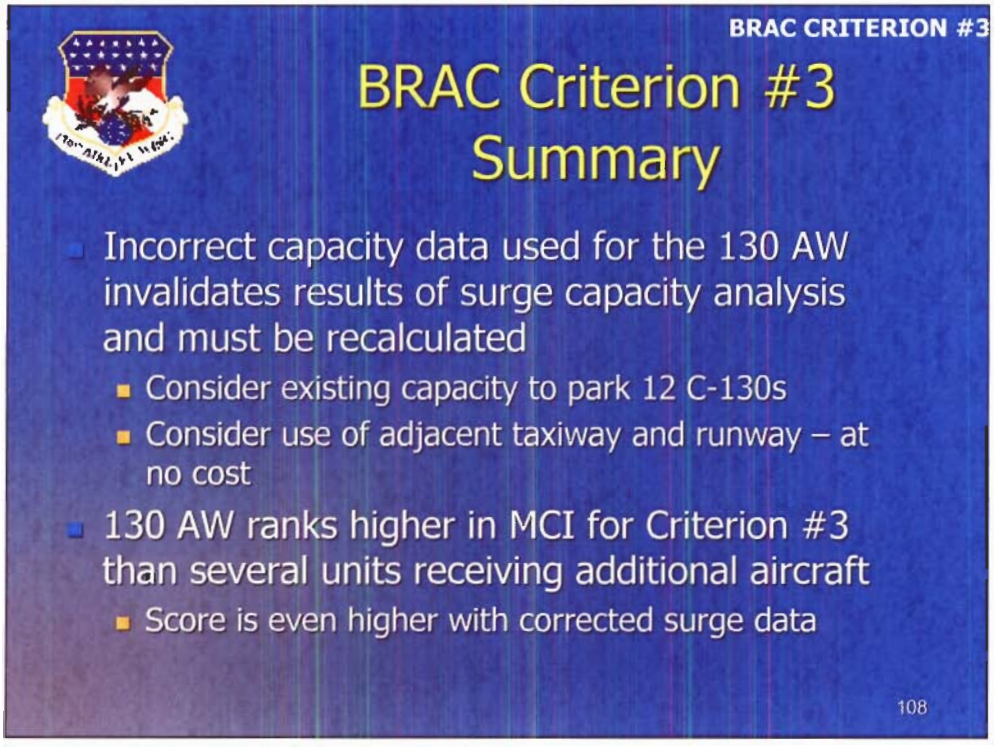
Vol V, Part 1 of 2, May 2005, Dept of AF Analysis and Recommendations



Although the 130 AW earned a zero on the ramp space score under criterion #2, we actually do have a credible existing surge capacity as evidenced by these recent events:



Again when looking at the MCI scores, the 130th Airlift Wing actually scored higher in criterion #3 than several other units who are gaining aircraft as a result of BRAC.



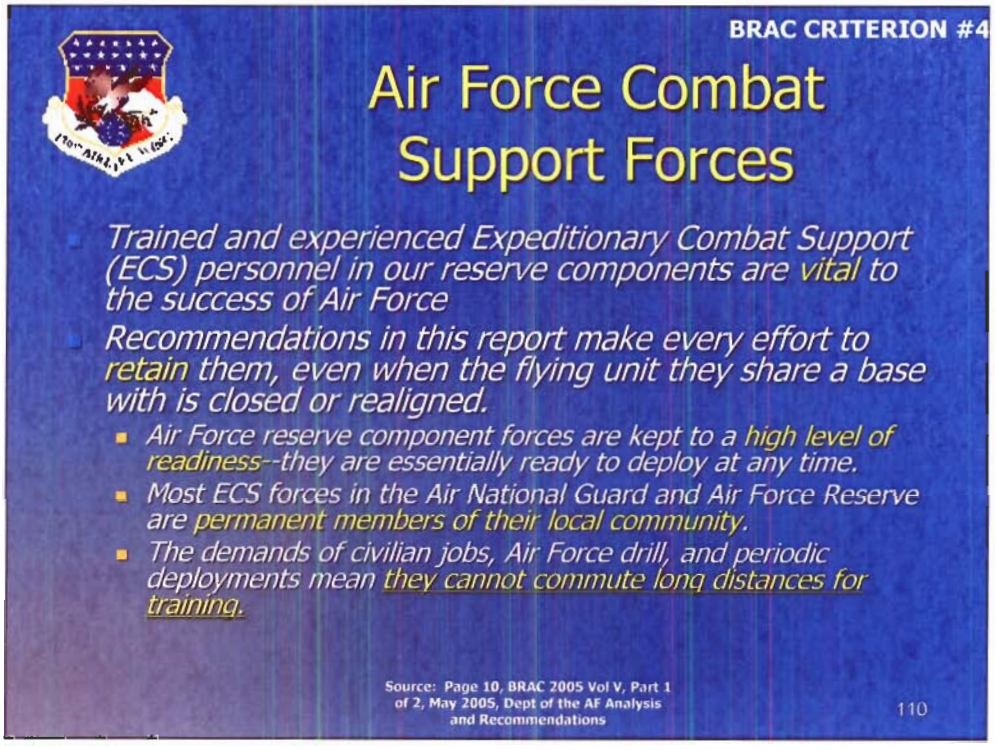
In summary for BRAC Military Value Criterion #3, our primary disconnect with the information used in making the BRAC determination:

Incorrect capacity data used for the 130 AW invalidates results of surge capacity analysis and must be recalculated

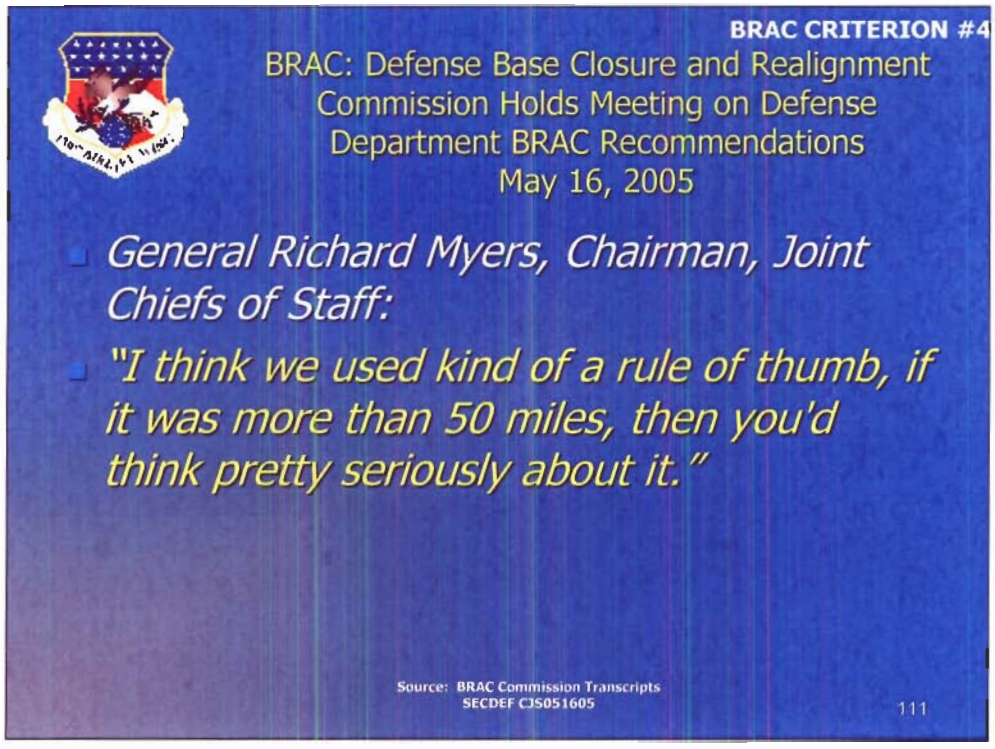
Consider existing capacity to park 12 C-130s

Consider use of adjacent taxiway and runway – at no cost

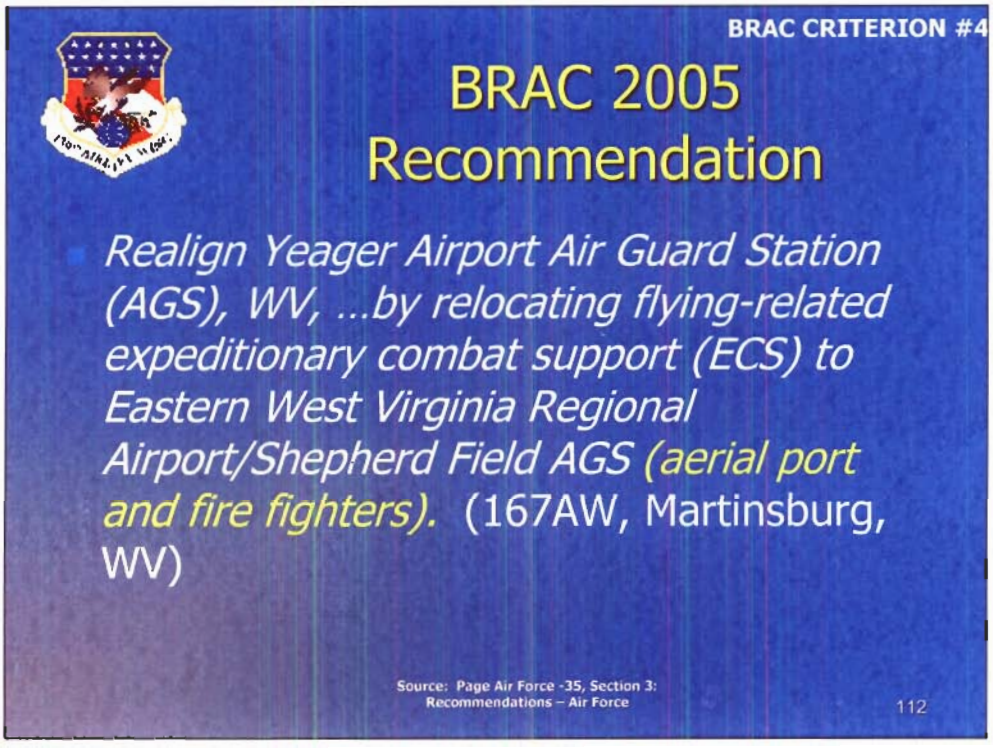
Personnel issues are the third key element in the Air Force BRAC strategy. The Air Force stated that they wanted to do all of this reorganizing while still retaining the experienced and skilled Airmen the Air Force needs. Let's closely examine the manpower implications of this realignment recommendation and see if this goal is met.



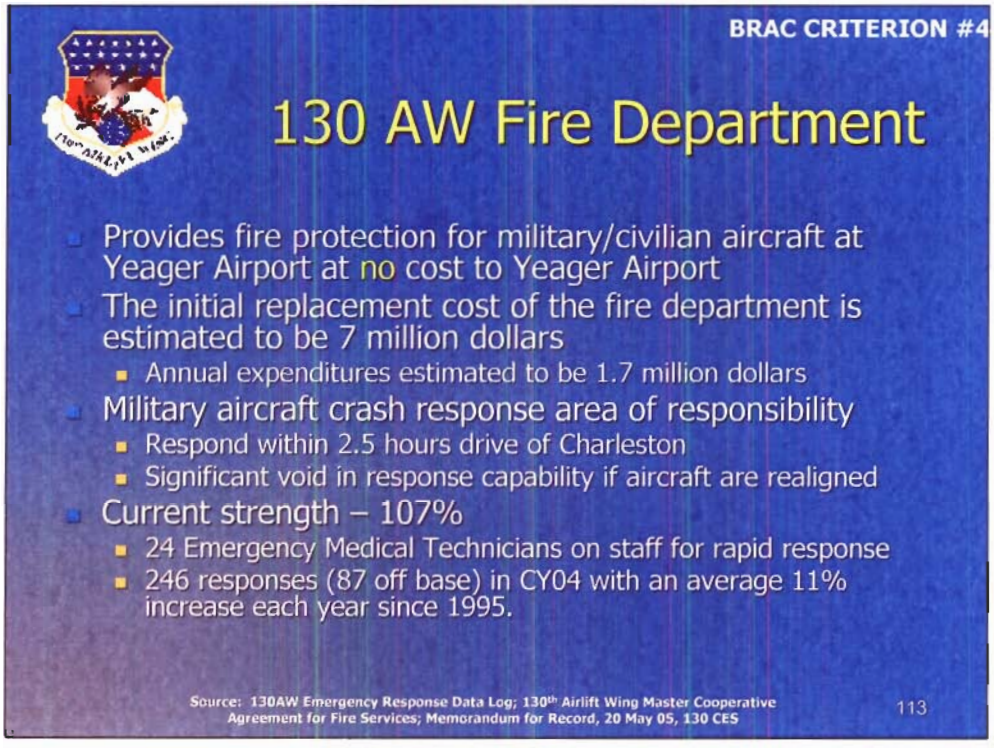
Another important part of the realignment recommendation involving the 130th Airlift Wing involves ECS-or Expeditionary Combat Support personnel. The Air Force admits that these trained and experienced personnel are VITAL to the success of the Air Force and claims to have made every effort to retain them even when the flying mission was realigned, as with the 130th. They go on to state how Air National Guard members are members of their local community, kept at a high level of readiness, but they are unable to commute long distances for training.



CQ: NEWSMAKER TRANSCRIPTS
Special Events
May 16, 2005
BRAC: Defense Base Closure and Realignment Commission Holds Meeting on Defense Department BRAC Recommendations
Witnesses:
Defense Secretary Donald Rumsfeld
Joint Chiefs of Staff Chairman Gen Richard Myers (USAF)
Michael Wynne, Under Secretary of Defense for Acquisition, Technology and Logistics
Philip Grone, Deputy Under Secretary of Defense for Installations and Environment
MYERS:
I don't think in the process that we anticipated that we would have difficulties in recruiting and retention.
I think -- and now we're talking more broadly about the entire reserve component -- look, the efforts on the Army side and the Air Force side involved the senior leadership of the Guard and Reserve in both cases, who essentially -- the senior leadership -- bought into this realignment, these consolidations and closures.
And no doubt there will be some inconveniences, where somebody that was used to drilling a coup le of miles away may have to drive further for that training. But we think the training will be better and in some cases, joint, which it needs to be, as opposed to having individual armories out there, where if you want to access, again, these people to go do military missions, a lot of retraining is necessary.
MYERS:
I don't know that there was any absolute standard for distance driven. But as some people know, guardsmen and reservists travel enormous distances today, depending on the unit and what they do and so forth.
I think we used kind of a rule of thumb, if it was more than 50 miles, then you'd think pretty seriously about it. I'm sure there are cases where there are more, it's more than 50. And it depends on where you are in the transportation infrastructure that's around and so forth.

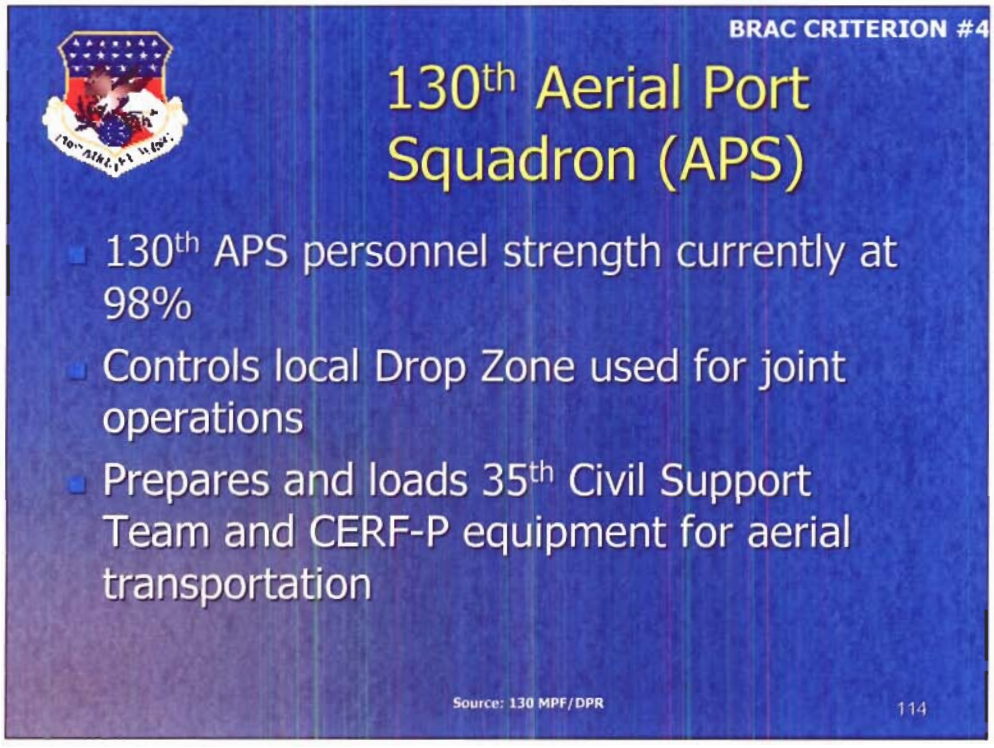


The second key part of the 130th's realignment is the relocation of the Aerial Port Squadron and Fire Department to the 167th Airlift Wing in Martinsburg, WV.



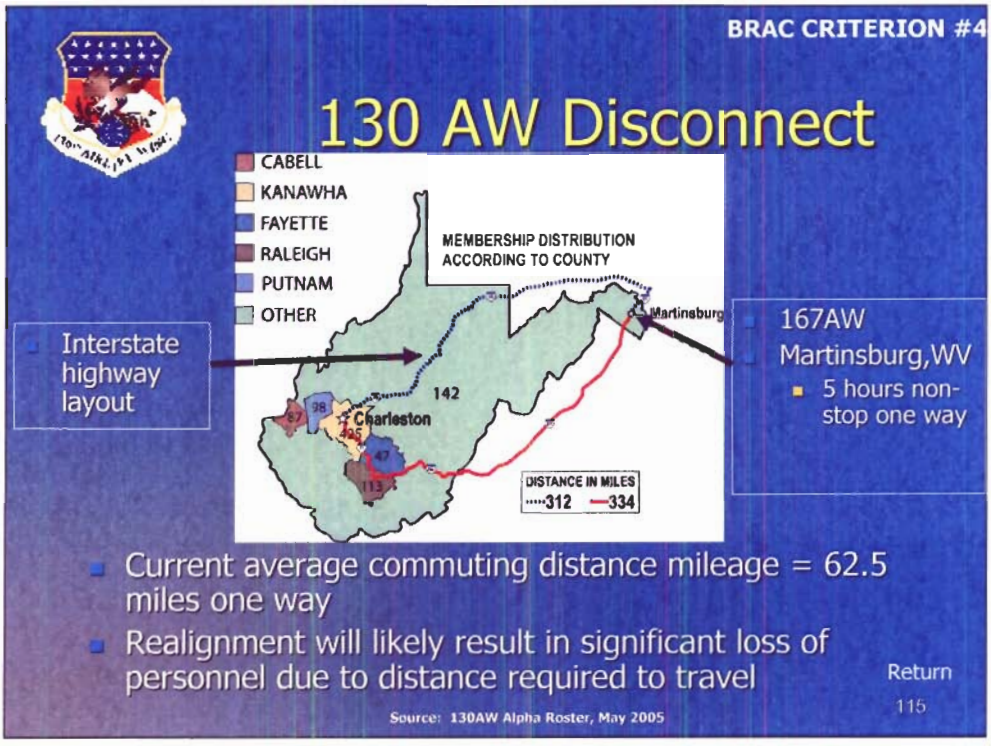
What the community and Air Force would be losing would be a significant asset to the community. The 130th Airlift Wing Fire Department currently provides the fire protection/crash rescue for all military and civilian aircraft at Yeager Airport. They also respond to off-base emergencies within the community. It is estimated that it will cost them $7 million dollars to replace the fire department and annual expenditures after that are estimated at 1.5 million dollars per year.

Authorized 27 personnel, assigned - 29



Aerial Port Squadron will also be negatively impacted due to the distance required to travel to Martinsburg. This is significant because the 130 AW Aerial Port Squadron personnel strength is currently at 98%. Personnel actually specifically request to joint the APS due to their outstanding reputation and have to placed elsewhere due to being at maximum permitted strength. The Aerial Port Squadron will also be unable to continue to control our joint drop zone in the western part of the state and will not be available to prepare and load the 35th CST's equipment for aerial transportation if realigned to Martinsburg.

Authorized – 99, Assigned - 97



Consider that when 86% of members of the 130th Airlift Wing live within 100 miles of Yeager AGS. The average commuting distance of all of our personnel is approximately 62.5 miles one way.

Due to geography, there is no quick and easy way to get to Martinsburg. Relocating APS and the Fire Department will likely result in significant loss of trained, experienced personnel due to the distances involved.

There are currently 89 members who live in 19 states other than West Virginia.

Ohio-24 members	Virginia-15 members
Kentucky-13 members	North Carolina-7 members
Pennsylvania-5 members	Maryland-4 members
South Carolina-4 members	Illinois-3 members
Florida-2 members	Indiana-2 members
Texas-2 members	

The States of Georgia, Michigan, Delaware, Minnesota, Oklahoma Kansas, Alabama and Wisconsin all have one (1) member each.

- With 89 members outside of the state of West Virginia that leaves a total of 936 members living within the borders of West Virginia. The distances they travel are listed below.

Miles Traveled	# Members
0-20 Miles	313 members
20-50 Miles	332 members
50-100 Miles	215 members
100+ Miles	76 members

This is significant because when you look at the qualitative factors of military value, you begin to see just what the Air Force, the state, and the nation, would be losing. Our 81 full-time maintenance technicians have an average of 22 years of experience. In fact, they were the first ANG maintenance personnel to win the Chief of Staff of the Air Force Team Excellence Award for developing improving C-130 maintenance procedures. It would take over 2 million dollars dollars to replace these personnel but more importantly, it will take a lifetime to replace their experience.

1772 years, 81 personnel = 21.87 years average

The following information was drawn from a "Costs for Training" document listed by AFSC dated 15 Nov 2004. It was provided by MSG Kasey MXG Training Tech.

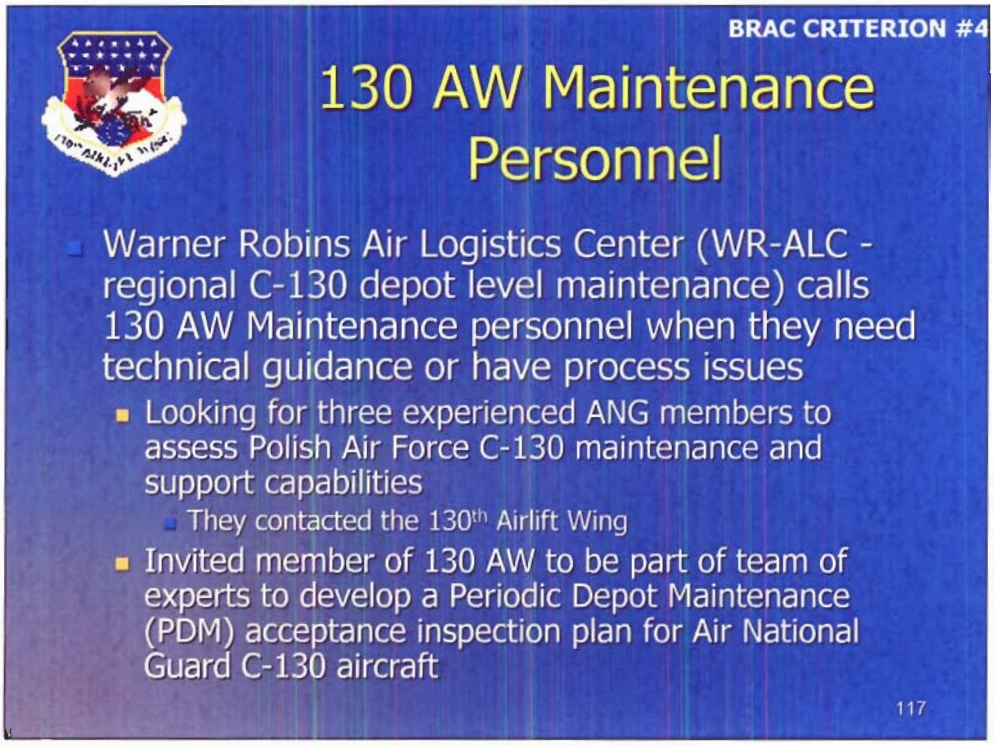
The cost for schooling to replace these maintenance people (73) not including the Officer positions would be $1,913,013.

This does not include any travel or per diem expenses. The average would be $26,569 per person.

The details of the award, Chief of Staff Team Excellence Award, was that the 130th was the 1st ANG unit to have been awarded. A working group from the Propulsion Shop analyzed and targeted the following process to improve:

Process for Repairing Turbine Modules

When the award was given in 1998, the total cost savings was determined to be $1, 822,362 for that year for the 130th Airlift Wing.



For example, when the Warner Robins Air Logistics Center, which performs C-130 depot level maintenance, runs into problems, it's the maintenance personnel at the 130th Airlift Wing that they call. When they needed three experienced members to go to Poland and assess their C-130 capabilities, they called the 130th Airlift Wing. When they needed expert advice to develop a depot maintenance plan for ANG C-130 aircraft, they called the 130th Airlift Wing.

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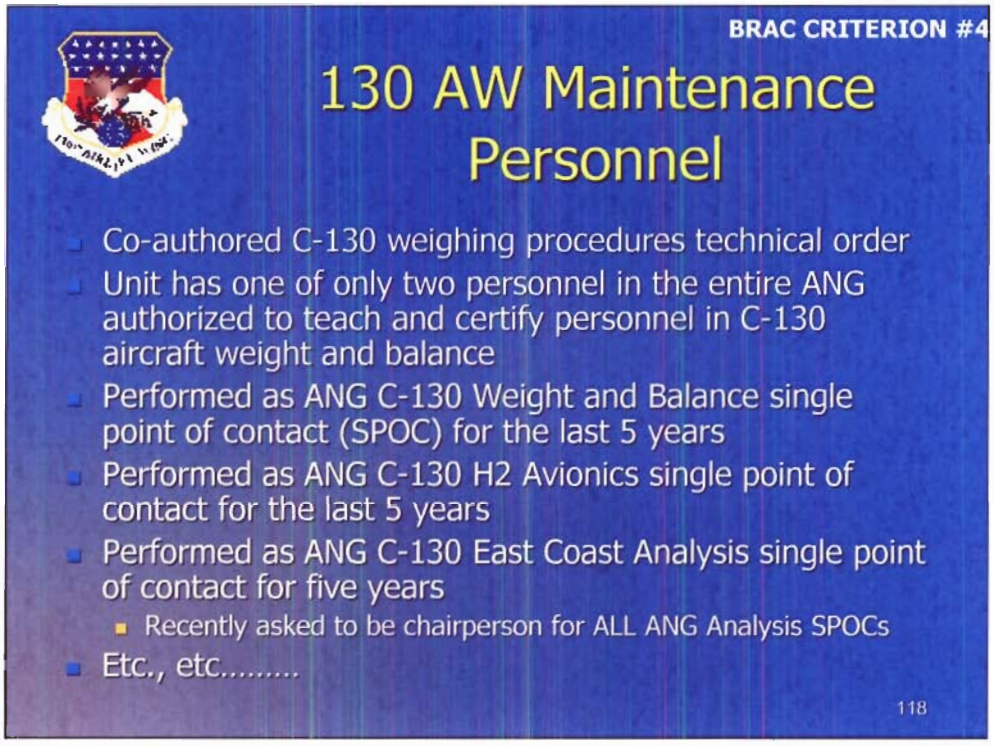
* The 130th Quality Assurance Superintendent, CMS Anthony Palla, has obtained a vast amount of knowledge and experience in C-130 Weight & Balance (W&B) and Depot Maintenance Procedures.

- Requested by WR-ALC, Foreign Military Sales (FMS)to join a team tasked with assessing the C-130 aircraft maintenance and support capabilities of the Polish Air Force at Balice Air Base, Kracow, Poland. Warner Robins needed 3 experienced Guard members in the area of Maintenance, Supply and Operations. They called the 130th

- Invited by Lockheed Martin to be involved in beta testing the Automated Weight and Balance System (AWBS) software.

- Requested by Warner Robins Air Logistics Center (ALC) W&B manager to help the US Coast Guard with their W&B program.

- Invited to Elizabeth City, NC and teach the AWBS program/weighing procedures to the USCG.



Our maintenance personnel have co-authored C-130 maintenance technical orders. We have one of only two personnel in the entire ANG authorized to teach and certify personnel in C-130 weight and balance. And our maintenance personnel have served as the ANG single points of contact for the last five years for weight and balance, H2 avionics, and east coast analysis. Our east coast analysis SPOC was recently asked to be the chairperson of ALL ANG analysis SPOCs. I could go on and on, but the point is that the qualitative military value that would be lost through this realignment significant.

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* The 130th Quality Assurance Superintendent, CMS Anthony Palla (continued)

- Co-authored C-130 weighing procedures technical order 1C-130H-2-08JG-00-1

- One of two people in the Air National Guard authorized to teach and certify people in C-130 aircraft weight and balance, as granted by the Aeronautical Systems Command at Wright Patterson AFB (ASC/ENFS)

- Invited to travel to New Zealand by the 109th Airlift Wing and the National Science Foundation, for the purpose of teaching the Automated Weight and Balance System software to Air New Zealand W&B engineers.

-Invited to WR-ALC to be part of an elite team of experts, chartered to develop a PDM C-130 Acceptance Inspection Plan for the Air National Guard

- Served as the C-130 W&B POC for the Air National Guard for the past 5 years

* MSgt Colleen Sergent has been the ANG C-130 East Coast Analysis single point of contact (SPOC) for five years, and was recently asked to be the chairperson for all the ANG Analysis SPOCs

* CMSgt Bruce Warden has been the ANG C-130/H2 Avionics SPOC for 5 years serving as a technical advisor.

FOR OFFICIAL USE ONLY **BRAC CRITERION #4**

130th Airlift Wing Historical Mission Capability Rate

- FY89 – FY04 130AW aircraft statistics -
  - 31,700 combat sorties
  - 60,530.7 combat hours
  - Average Mission Capability (MC) rate – 76.22%
    - ANG MC goal – 72%

Source: AFKS – Air Force Knowledge Services

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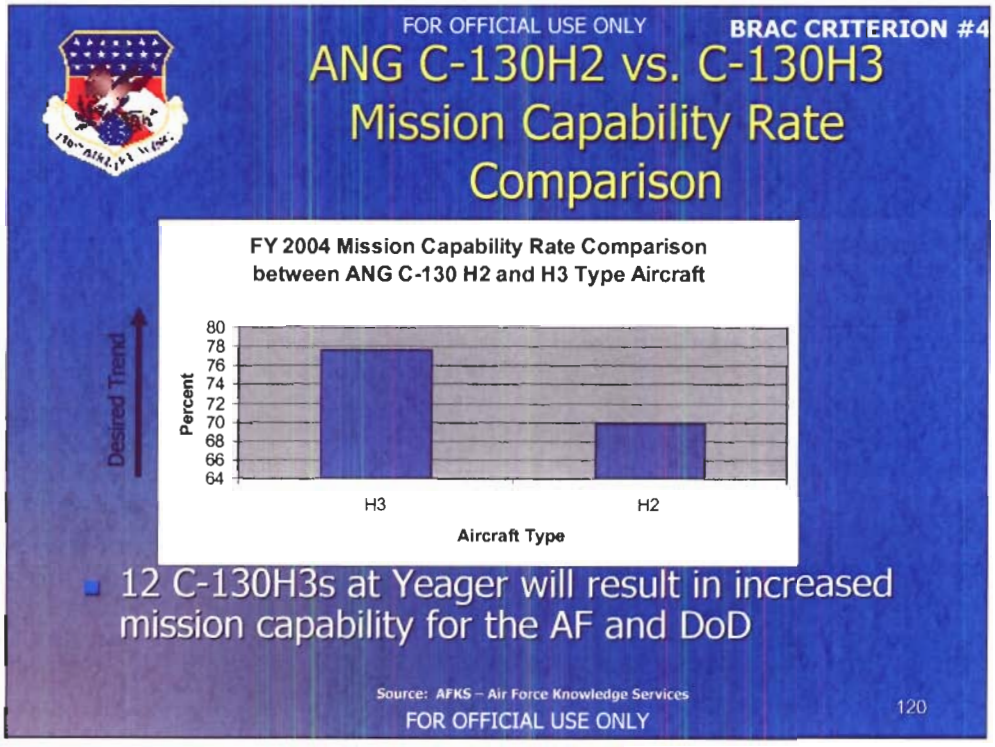

And when you consider that we are transitioning from C-130H2s to C-130H3s, consider the excellent mission capable rates that our maintenance personnel could deliver the Air Force and DoD if given 12 C-130H3s.

The 130th Airlift Wing also participates in research, development, and operational testing of new equipment. An excellent example of this is the partnership between the 130th and West Virginia University in the development of the OCULUS system. This is a portable sensor system that essentially turns any C-130 into an Intelligence, Surveillance and Reconnaissance platform. Air Force ISR systems are currently low density, high demand assets but a sensor suite such as this could greatly multiply ISR capabilities by turning any C-130 into a surveillance platform. The reason that the 130th is partnered with WVU is due to the experience of our maintenance and operations personnel.

BRAC CRITERION #4

Average Cost For Fully Qualified Aircrew Member

Crew Position	Quantity	Avg. Cost	Total Cost
Pilot	53	$1,036,034	$54,909,802
Navigator	16	$636,034	$10,176,544
Flight Engineer	16	$189,000	$3,024,000
Loadmaster	30	$189,000	$5,670,000

Source: 130 AW ARMS

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UPT - $1,000,000 Undergraduate Pilot Training
UNT - $600,000 Undergraduate Navigator Training
AMS - $6,000 Academy of Military Science
MFS - $1,000 Medical Flight Screening
Surv - $6,000 Water and Combat Survival
PCSs - $20,000 Permanent Change of Station
FTU - $34,000 (not counting the fuel, mx, etc; when you add these it runs up high to $500,000) Formal Training Unit or Flying Training Graduate
BAH adj - $3,000 Basic Allowance for Housing
CEA - $136,000 (from entry to FTU but again not counting the above...reason for not including is that it is hard to break them down among the different positions. - Enlisted Aircrew Training)

Lt Col Kent Barker
Chief Flying Training
ANG/DPDF
DSN 327-0950
Fax 327-5914/5

BRAC CRITERION #4

130 AW Average Aircrew Member Experience

Crew Position	Total Hours	Combat Hours	Combat Support Hours
Pilot	**3707**	**304**	**179**
Co-Pilot	**2342**	**319**	**118**
Navigator	**2114**	**301**	**128**
Flight Engineer	**4271**	**487**	**241**
Loadmaster	**3403**	**350**	**173**

Source: 130 AW ARMS

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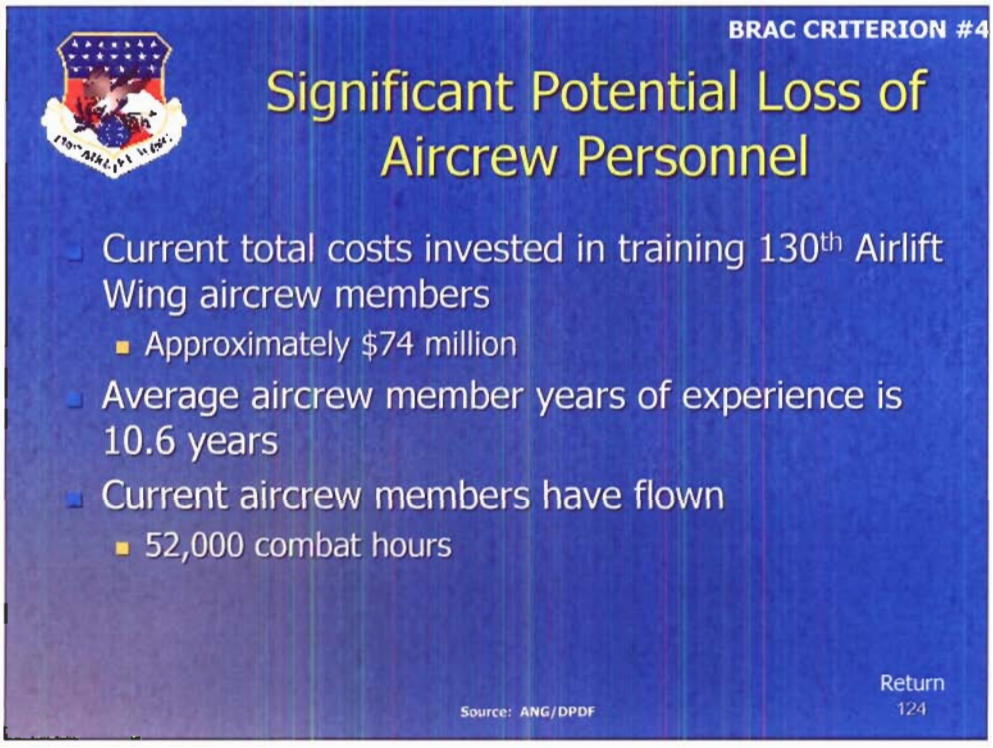
Aircrew Experience (avg). Source: ARMS report 3 Jun 05, TSG Looney

Pilots:	3707 total,	304 cbt,	179 cbt support.
CP:	2342 total,	319 cbt,	118 cbt support
Nav:	2114 total,	301 cbt,	128 cbt support
FE:	4271 total,	487 cbt,	241 cbt support
LM:	3403 total,	350 cbt,	173 cbt support

TOTAL AIRCREW TRAINING DAYS

PILOT	945 days
NAVIGATOR	692.5 days
FLIGHT ENGINEER	325 days
LOADMASTER	270 days



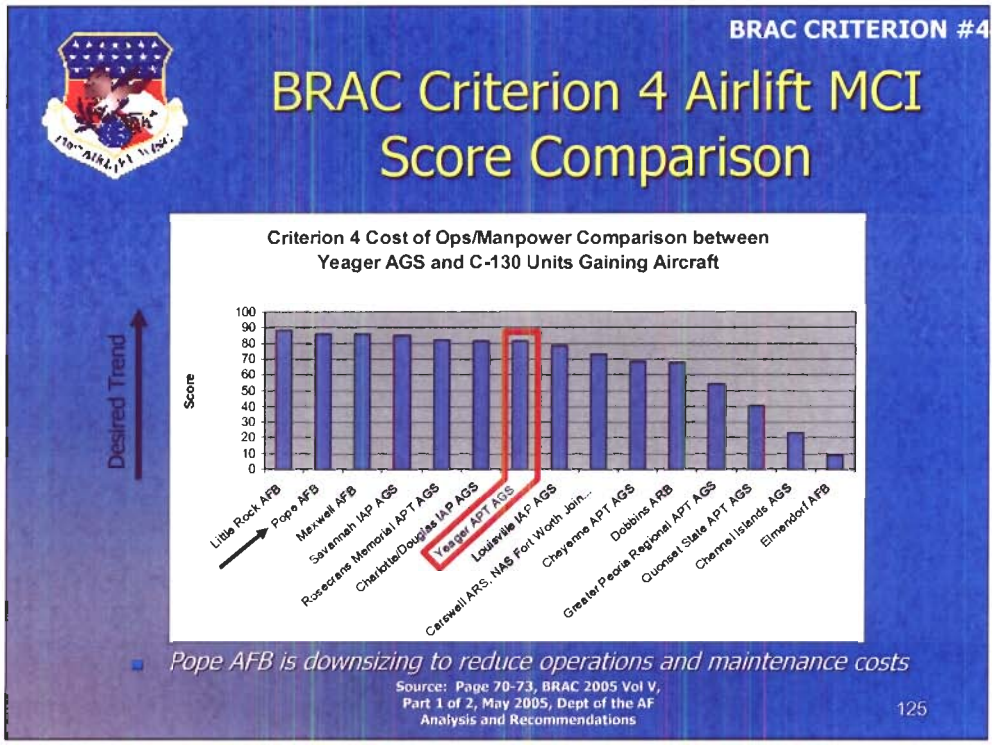
This realignment would also result in significant loss of trained C-130 aircrew members. The current approximate amount invested to get basic qualified aircrew members at the 130th Airlift Wing amounts to approximately $74 million dollars ($73,780,346). But more importantly than the cost, what about the experience level of our aircrew members that you would be losing through this realignment. These aircrew members have flown more than 52,000 combat and combat support sorties during their careers. Nearly all of them are experienced combat veterans. A large number of them would not transfer to another unit and this valuable experience would be lost.

Totals for all 130 AW aircrew members:

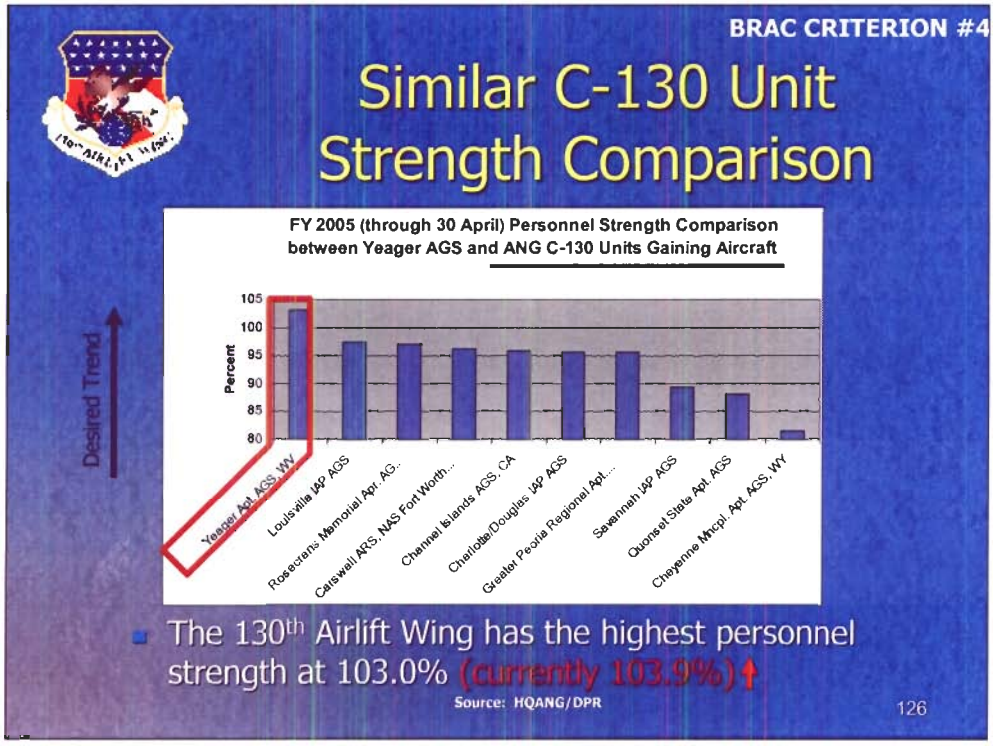
Combat Hrs	Combat Sorties	Combat Support Hrs	Combat Support Sorties
34,497.3	16,184	17,365.9	8,292

Note: The times and numbers specified are a grand total for each individuals career.

Crew Position	Years of Flying Experience
Average Experience Pilots	14
Average Experience Co-pilots	9
Average Experience Navigators	7
Average Experience Flight Engineers	13
Average Experience Loadmasters	10



Once again, when the 130th Airlift Wing is compared to other units receiving aircraft as a result of BRAC, we are among the most cost efficient using the Airlift MCI data. The AF BRAC recommendations actually stated that one of the main justifications for downsizing Pope AFB was to reduce operations and maintenance costs, probably due to all of the excess infrastructure that I pointed to in criterion #2. Yet when we look at the results of cost and manpower data we see once again, Active Duty units perform exceptionally well.



Now let's take a look and some of the quantitative aspects of our personnel. Here you see that of all of the ANG C-130 units gaining additional aircraft, the 130th Airlift Wing has the highest personnel strength at 103.0% as of 30 April and currently 103.9%. Even after the BRAC realignment recommendation came out, we continue to grow in strength! The question that we have to ask here is that if these other units can't fill their unit positions for the aircraft that they have, how can they be expected to fill additional positions for the other aircraft?

QUICK REFERENCE SHEET – STRENGTH

Based on overall strength data from APRIL 2005

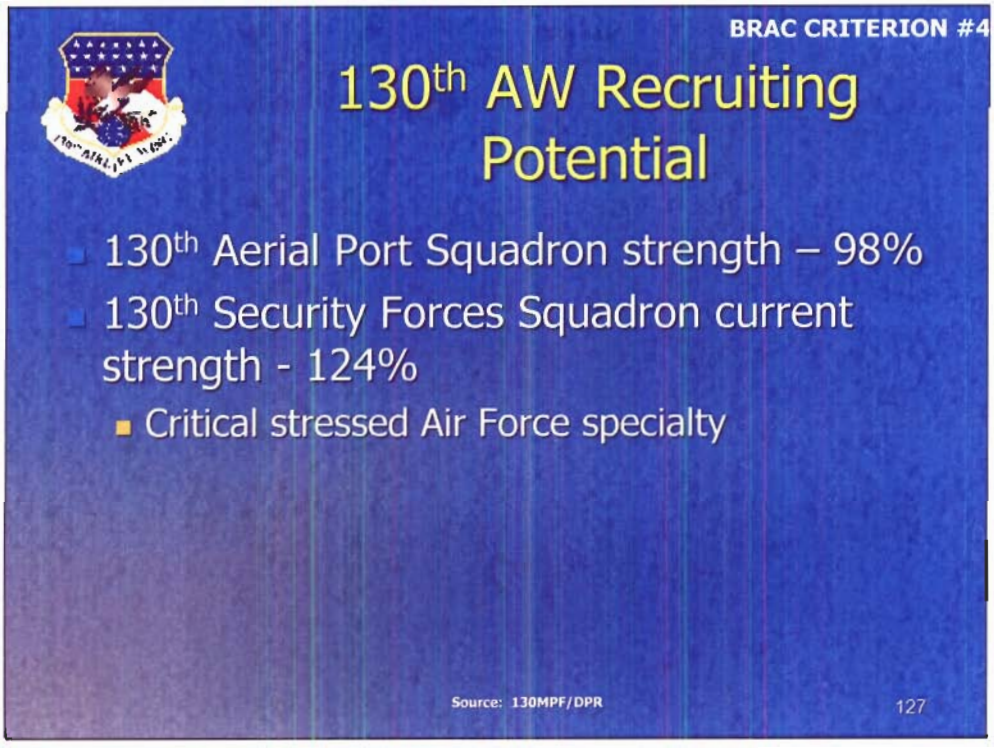
Of the 22 Air National Guard units on the BRAC list for increase in personnel, the 130th Airlift Wing is tied for second in overall strength. (We are 103.0%)

Of the Air National Guard units on the BRAC list for increase in personnel, there are currently 7 units that have C-130's. The 130th Airlift Wing exceeds all of them in overall strength…the closest being the 167th AW, with 100.1%. We are at 103.0%.

Of the total units in the Air National Guard with at least one C-130 (25 units), there are only two units with better strength (Ohio and Minnesota).

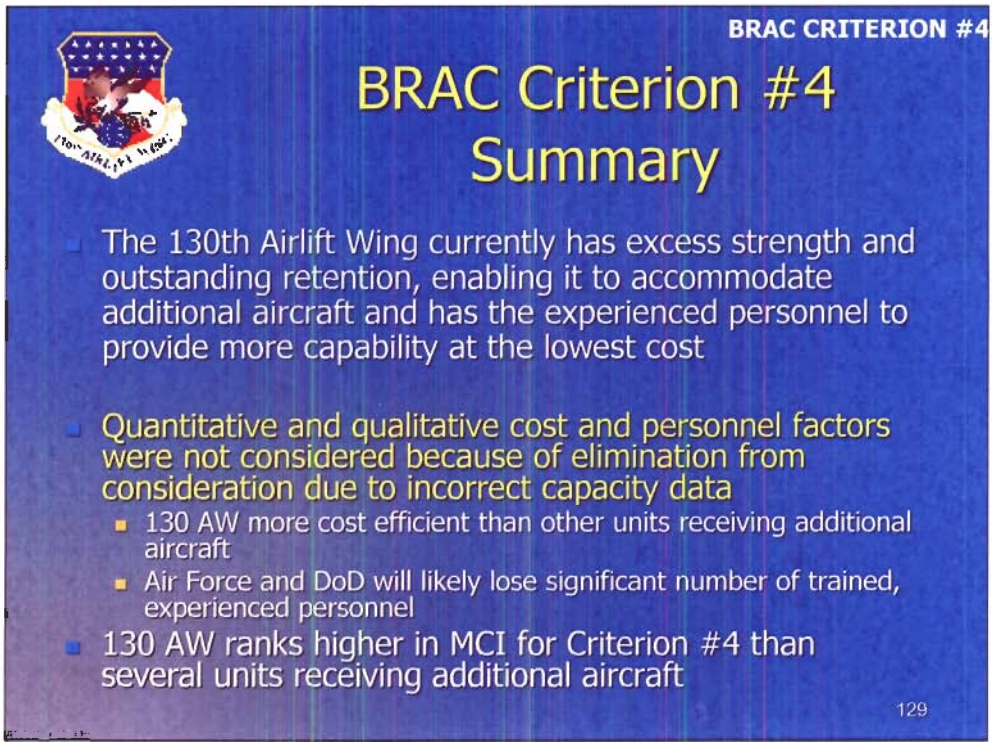
Five of the Air National Guard units increasing in size are currently less than 90% manned.

Note – To date, the 130th Recruiting staff has enlisted 7 new members in the month of May, with 2 more potential enlistees before the end of the month. We only anticipate 3 losses, for a net gain of 6 people, which is nearly 1 percentage point in strength figures.



Despite our smaller recruiting population base we can fill our current unit positions AND we have the capability to recruit additional personnel beyond that. Aerial Port Squadron, scheduled to be realigned a 5 to 6 hour drive away to Martinsburg, is currently manned at 98%. Our Security Forces Squadron, a critically stressed career field in the Air Force today, has a personnel strength of 124%.

Not only can the 130th Airlift Wing accept 12 C-130s today, we have the personnel strength and retention to provide the necessary additional manning and with our significant experience level we can provide more capability and we can do so at the lowest cost.

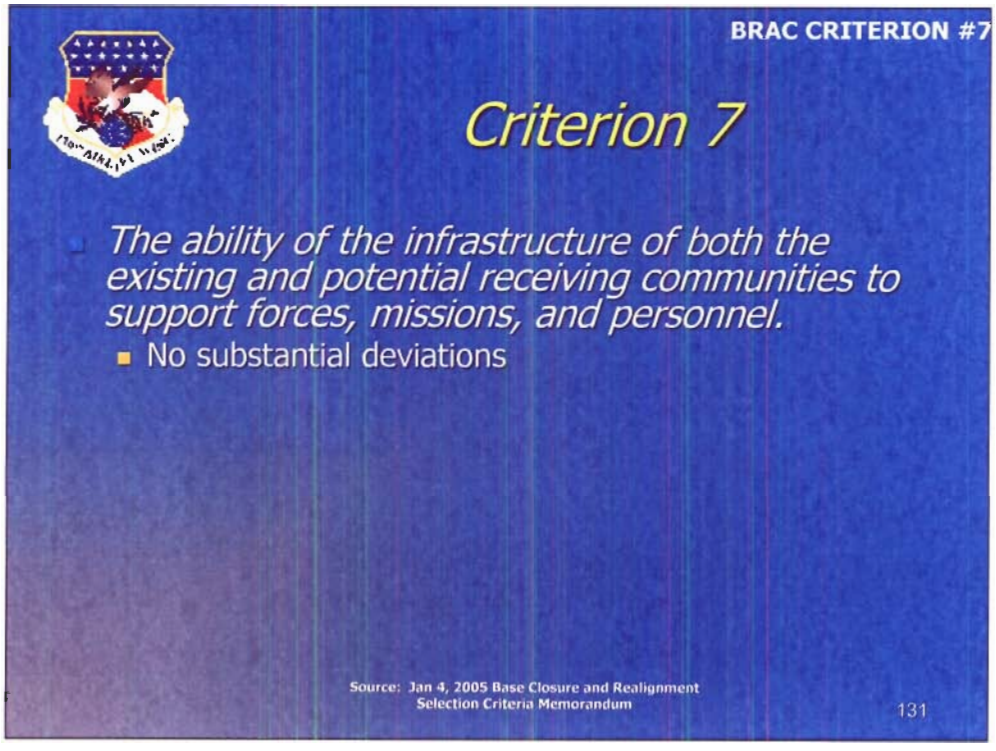


In summary for BRAC Military Value Criterion #4, our primary disconnects with the information used in making the BRAC determination are that our qualitative AND quantitative cost and personnel factors were not considered AT ALL in this realignment recommendation. The data proves that the 130th Airlift Wing provides a more cost efficient capability than the other ANG units who are receiving additional aircraft and we will likely lose a significant number of trained, experienced personnel if this realignment occurs as currently planned.

Criterion 6

- *The economic impact on existing communities in the vicinity of military installations.*
- Studies done on base closures and realignments which have indicated no adverse economic impacts do not apply to Yeager AGS
  - These studies were not completed for joint use facilities
  - Most of the closures were in areas with growing economies
  - Many times there were other nearby military installations which could absorb the displaced persons
- 16 area counties are classified by the Appalachian Regional Commission as "economically distressed"
- West Virginia ranks 48th in Per Capita Income
- West Virginia has a poverty rate of 17.7% which is 125% of the National Average

Source: The Economic Impact of the Realignment of the 130th Air National Guard Airlift Wing at Yeager Airport, June 2005; Jan 4, 2005 Base Closure and Realignment Selection Criteria Memorandum

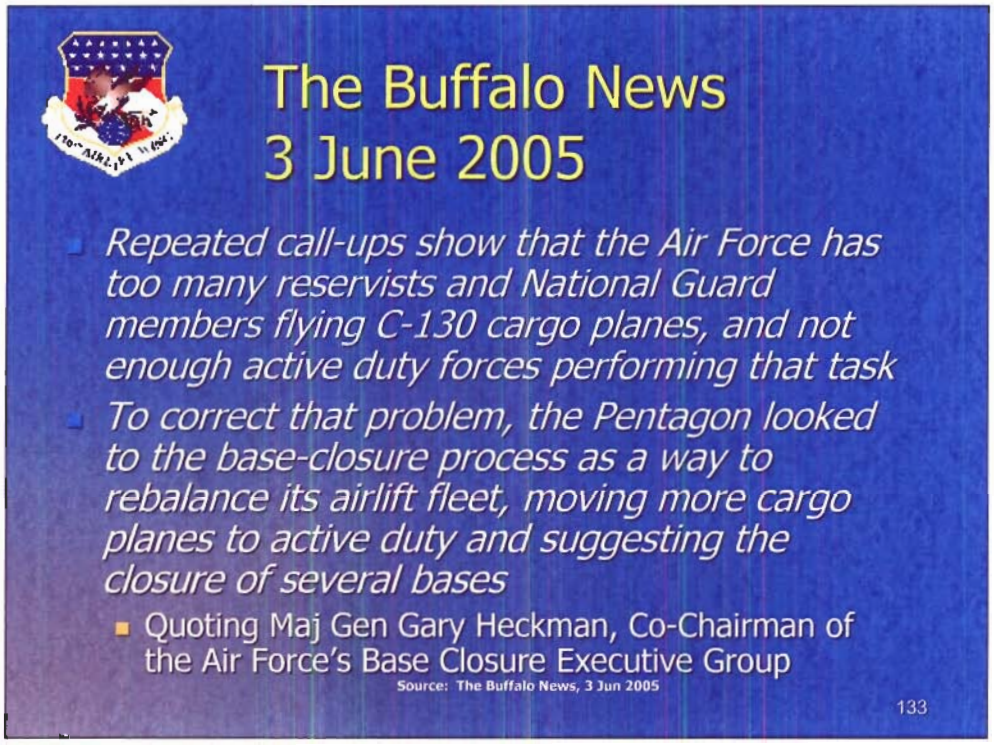


Demographics
Child Care
Cost Of Living
Education
Employment
Housing
Medical Providers
Safety / Crime
Transportation
Utilities

Criterion 8

- *The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities.*
  - No substantial deviations

Source: Jan 4, 2005 Base Closure and Realignment Selection Criteria Memorandum



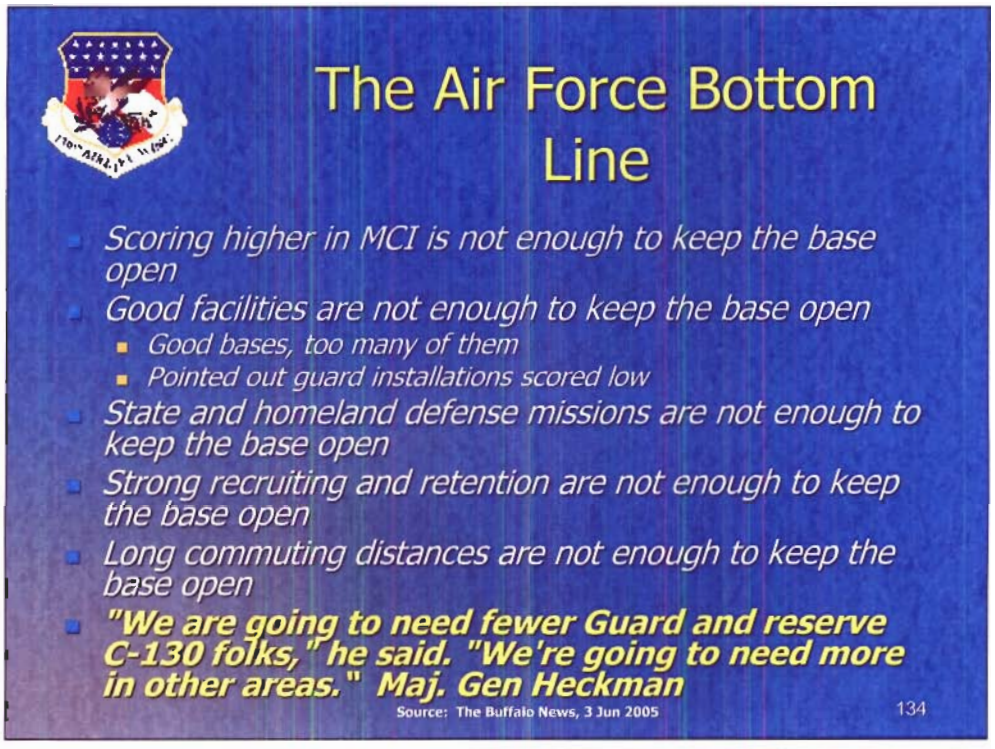
Major General Gary Heckman, co-chairman of the Air Force's Base Closure Executive Group that put these recommendations together very clearly stated that there are too many C-130s in the Guard and Reserve and not enough in the Active Duty. Therefore, they were using the BRAC process to correct their perceived imbalance.

The Buffalo News

Frequent call-ups are cited in proposal to shut Falls base

Repeated activation of reservists shows need to rebalance airlift fleet, general says

By JERRY ZREMSKI
News Washington Bureau
6/3/2005



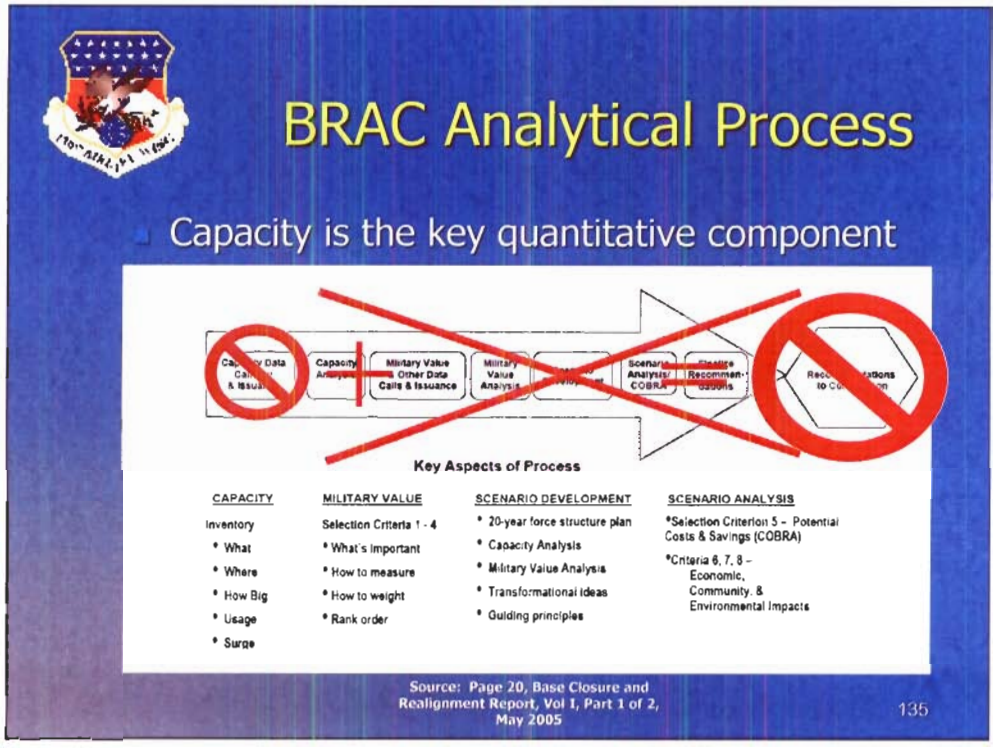
But in their effort to rebalance the fleet, all of these factors pertaining to military value were NOT enough to avoid realignment or closure.

The Buffalo News

Frequent call-ups are cited in proposal to shut Falls base

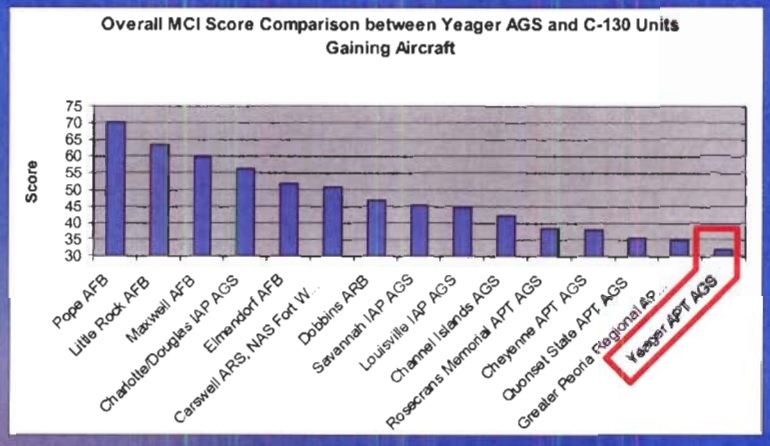
Repeated activation of reservists shows need to rebalance airlift fleet, general says

By JERRY ZREMSKI
News Washington Bureau
6/3/2005



Today we have provided you with correct capacity data to use as the key quantitative component in the BRAC Analysis Process. We ask that you use this corrected data as well as the other information provided to determine our TRUE military value to use as the primary basis for reconsideration of the proposed realignment of the 130th Airlift Wing.

Overall Airlift MCI Score Comparison



Desired Trend

Source: Page 70-73, BRAC 2005 Vol V, Part 1 of 2, May 2005, Dept of the AF Analysis and Recommendations

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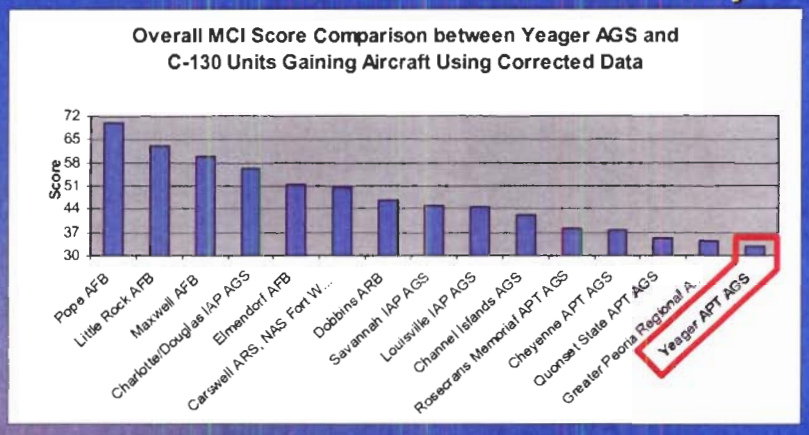
Overall MCI Score Comparison (corrected data for Criterion #2)



Source: Page 70-73, BRAC 2005 Vol V, Part 1 of 2, May 2005, Dept of the AF Analysis and Recommendations

COST ESTIMATE: 3 ADDITIONAL
PARKING SPOTS

DEPARTMENT OF THE AIR FORCE
130th AIRLIFT WING (AMC)
1679 Coonskin Drive, Unit #2
Charleston, West Virginia 25311-5002

13 June 2005

Major John W. Dulin
Base Civil Engineer, 130th Airlift Wing
1679 Coonskin Drive
Charleston, WV 25311

We have completed an initial cost analysis of expanding the current ramp to support a total of 16 PAI C-130H aircraft. In order to accomplish the expansion, several utilities would need to relocated or upgraded and several facilities would need to be relocated to other areas on base.

The 130th completed a ramp renovation in FY 2001/2002 in which approximately 52,000 SY of ramp was upgraded at a cost of $4.5 million dollars to meet current and future aircraft needs. In order to meet the requirements for three additional aircraft an additional 10,000 SY of ramp would need to be constructed. Based upon historical costs and the projected increases in construction pricing, the expansion would cost an estimated $2.5 to $3.0 million dollars.

Sincerely,

JOHN W. DULIN, MAJOR, WVANG
Base Civil Engineer, 130th Airlift Wing

Maintenance equipment differences between H2 and H3

C130H-2	C130H-3
Radar	
APN-59G APN-59G is an older radar system that has been modified several times. The system was orginally designed in 1950's era. Has high failure with both RT's and antennas.	**APN-141 Low Power Color Radar** APN-141 is a modern radar system that allows replacement of modules, instead of the entire radar RT. It also make aircraft AWAD capable. Radar display is displayed at NAV station and Pilot's instrument panel.
Conventional Analog Flight Instruments	
HSI-45 and FD-109 Analog technology with low mean time between failure. Assets are hard to get because of shortages in supply system	**Electronic Flight Instruments** Digital technology and allows information transfer between displays, this allows one display to perform as the other display. Both units are the same on the Pilot's or Co-pilot's panel.
IFF Transponder	
APX-119 Single IFF Mode S transponder.	**APX-119 Dual IFF** Co-pilot's Altimeter is an encoder that supplies mode C information to #2 IFF. Mode 4 will only work with #1 IFF.
Ground Avoidance System	
GCAS GCAS monitors the actual Flap position. General system operation is the same with different computers. Gets input from it own Air Data Computer.	**GPWS** Flaps are not monitored only flap handle above 45%. Gets input from Digital Air Data Computer to get TAS and Altitude rate change.
Engine Instrumentation	
Analog engine instruments There are several different instruments that are associated with each engine. Instruments are not interchangeable.	**Digital Engine Instruments** There are 2 types of engine instruments on H3 aircraft. Type 1 instruments are interchangeable and Type 2 instruments are interchangeable. Testing procedures and alignment procedures are different.
Inertial Navigation	
Single INU Single INU system requires the use of Vertical Reference Gyro and C-12 Compass System to have 2 complete navigation systems.	**Dual INU** The second INU is used to make 2 complete navigation systems.

Warning and Caution System

Warning systems	**MCAWS**
Separate lights at different locations on flight deck.	Integrates most warning and caution lights in a master panel at the center consol.

Autopilot AP-105

Single vertical mode autopilot	Autopilot (Additional Modes)
Autopilot has altitude hold only	Autopilot has Indicated Airspeed hold and vertical speed hold, these modes are only on pilot's side. The pilot's air data control is different and is not interchangeable with co-pilot's. Altitude alerter system is used to preset minimum altitude.

Self Contained Navigation System

SCNS	**SCNS**
Low speed processor in the Integrated Display and Control Unit that uses OFP 55-03	High speed processor in the Integrated Display and Control Unit that uses OFP 55-04. Uses dual INU.

Station Keeping Equipment

APN-169C	**APN-169C**
Uses separated Azimuth indicator that is mounted on top of instrument panel in the center. The pilot's flight command indicator is mounted on top of instrument panel on pilot's side.	SKE is displayed with radar in the RDU and can also be displayed in the EFI's. The pilot's flight command indicator is mounted in the glare shield in the center of pilot's panel.

True Air Speed System

True Air Speed System	**Digital Air Data Computer**
Navigation True Airspeed Computer supplies TAS information to SCNS and is indicated on the True Airspeed and Doppler indicator on pilot's instrument panel. Navigator also has a analog true airspeed indicator in Nav's panel	Digital Air Data Computer supplies information to SCNS, information to the Digital True Airspeed indicator on Nav's panel, and Altitude Alerter System.

Altimeters, Airspeed, and VVI

Analog pitot and static instruments	**Digital pitot and static instruments**

Pilot's altimeter is an analog encoding altimeter that supplies altitude information to SCNS and IFF for mode C. Co-pilot's altimeter is a standard analog altimeter with no encoder. Nav's altimeter is a servo driven encoding altimeter that provides altitude information to the SKE system. VVI is a TA/VSI and are part of the TCAS system. Pilot and Co-pilot airspeed indicators are the same and Nav uses TAS indicator.	Pilot, Co-pilot, and Nav's are all the same digital encoding altimeter. VVI is the TA/VSI with TCAS. Pilot, Co-pilot, and Nav airspeed indicators are driven by the digital air data computer
Standby Instruments	
	Standby ADI
Not required for analog instruments.	2" standby attitude indicator required with the use of electronic flight instruments.
Fuel Quantity System	
Digital Fuel Quantity Instruments	**Digital Fuel Quantity Instruments**
Digital Fuel Quantity Instruments has standard back lighting.	Digital Fuel Quantity Instruments have NVG back lighting.
Clocks	
Analog Clocks	Digital Clocks
Lighting	
Standard lighting	**NVG lighting**
Standard Emergency exit Lights, Conventional Formation lights, and Conventional Interior lighting. Some areas have been modified for NVG.	NVG emergency exit lights, NVG formation strip lighting, IR lighting throughout aircraft, and Lighting controls.

Aircrew Training Required to upgrade from C130H-2 to C130H-3

Differences Training

One ground school session, one to two flights for H2 qualified crewmembers

Proficiency

Aircrews face difficulties remaining proficient on both models

- avionics differences
- emergency procedures

Deployment

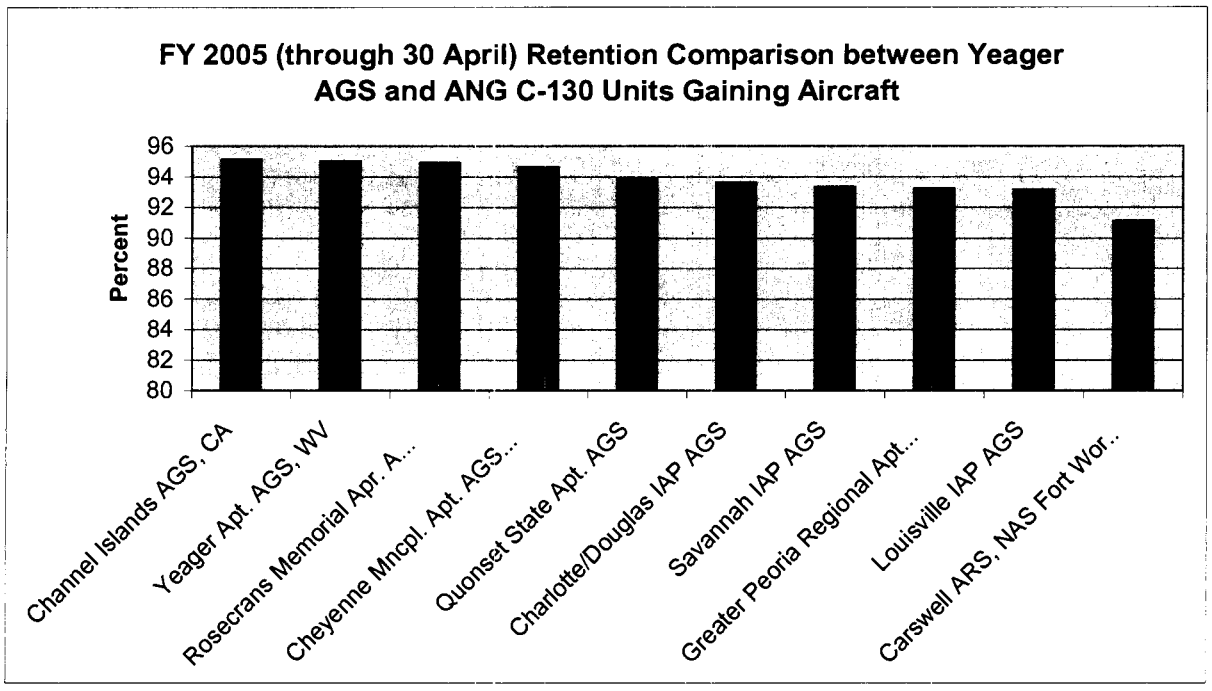
Typically like airframes are deployed to the same location

Employment

Once the airplanes are on station multiple problems arise

- inter-flying becomes more difficult
- tasking and scheduling issues

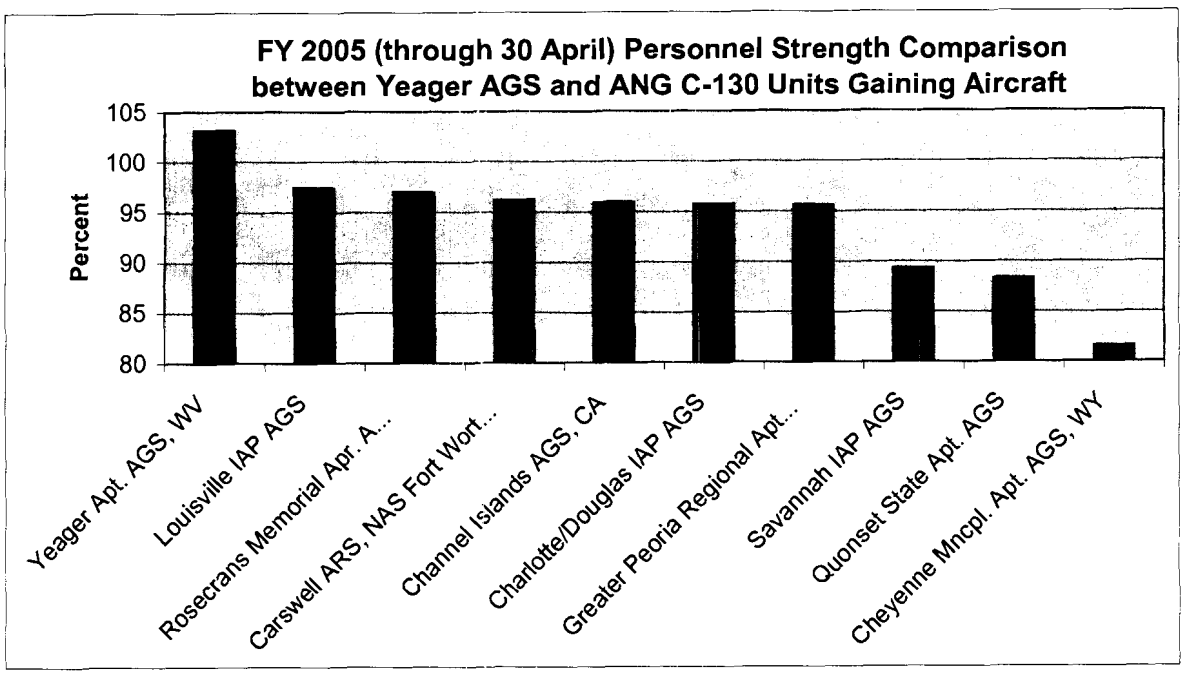
STATISTICAL SUPPORT DATA



Unit	Percentage
Channel Islands AGS, CA	95.1
Yeager Apt. AGS, WV	95.0
Rosecrans Memorial Apr. AGS, MO	94.9
Cheyenne Mncpl. Apt. AGS, WY	94.6
Quonset State Apt. AGS	93.9
Charlotte/Douglas IAP AGS	93.60
Savannah IAP AGS	93.3
Greater Peoria Regional Apt. AGS	93.20
Louisville IAP AGS	93.1
Carswell ARS, NAS Fort Worth Joint Reserve	91.10

Source: HQANG/DPR

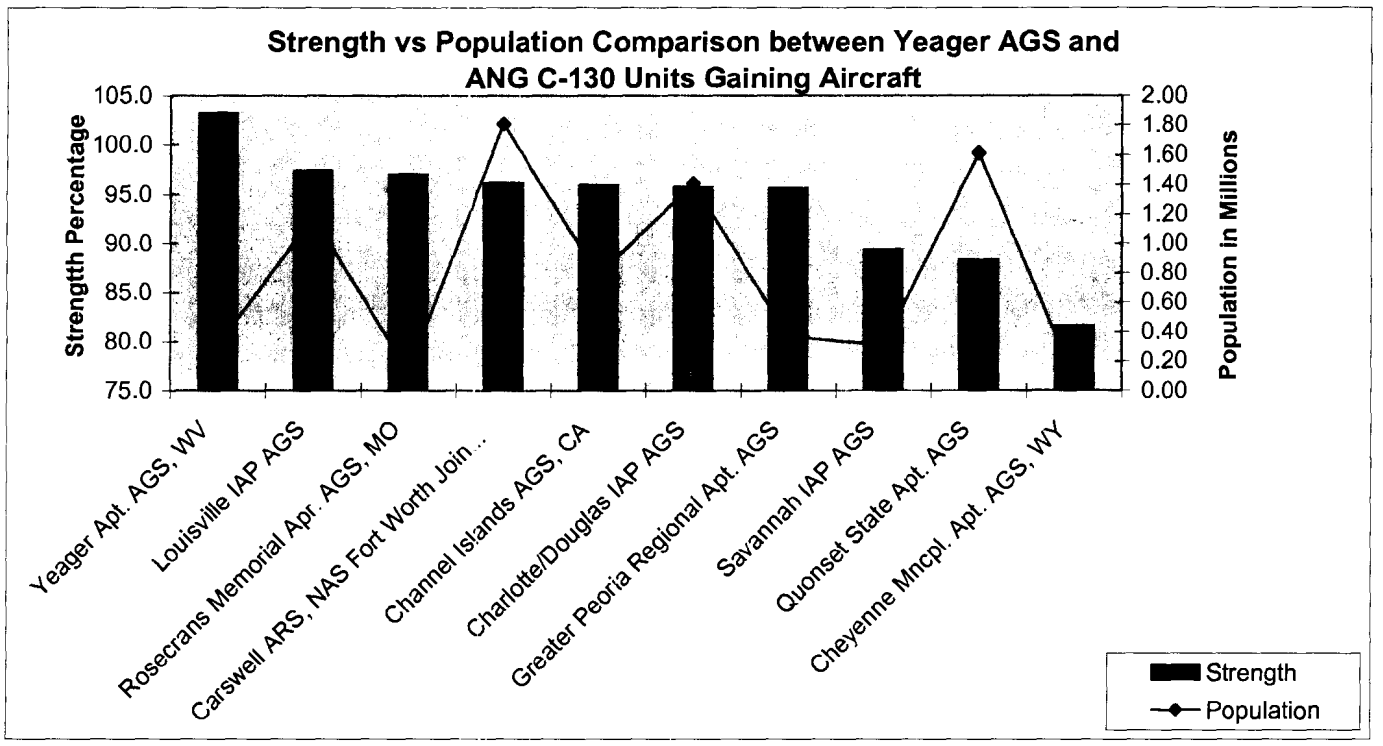
Gain Acft
Yeager



Unit	Percentage
Yeager Apt. AGS, WV	103.2
Louisville IAP AGS	97.4
Rosecrans Memorial Apr. AGS, MO	97.0
Carswell ARS, NAS Fort Worth Joint Reserve	96.2
Channel Islands AGS, CA	95.9
Charlotte/Douglas IAP AGS	95.7
Greater Peoria Regional Apt. AGS	95.6
Savannah IAP AGS	89.3
Quonset State Apt. AGS	88.3
Cheyenne Mncpl. Apt. AGS, WY	81.6

Source: HQANG/DPR

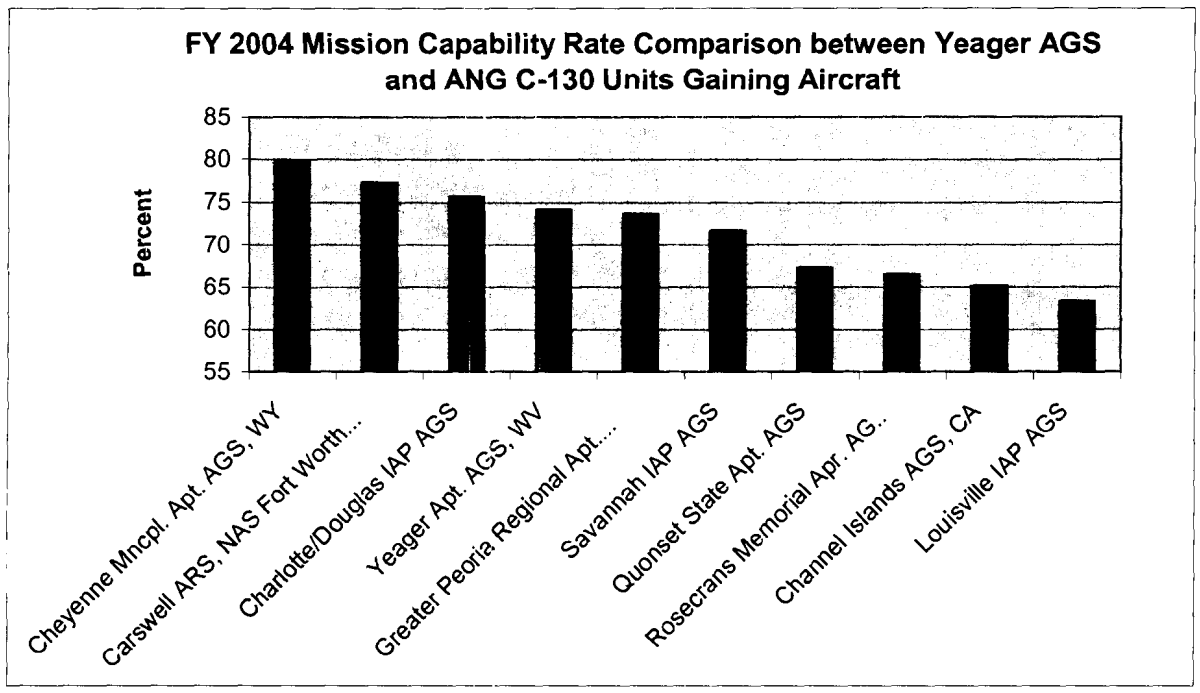
Gain Acft
Yeager



	Population
Yeager APT AGS	306,544
Louisville IAP AGS	1,180,294
Rosecrans Memorial APT AGS (St Joe)	123,069
Carswell ARS, NAS Fort Worth Joint Reserve	1,809,504
Channel Islands AGS	781,159
Charlotte/Douglas IAP AGS	1,405,892
Greater Peoria Regional APT AGS	366,302
Savannah IAP AGS	301,171
Quonset State APT AGS (Rhode Island))	1,612,048
Cheyenne APT AGS	83,033

Source: BRAC 2005 Economic Impact Report

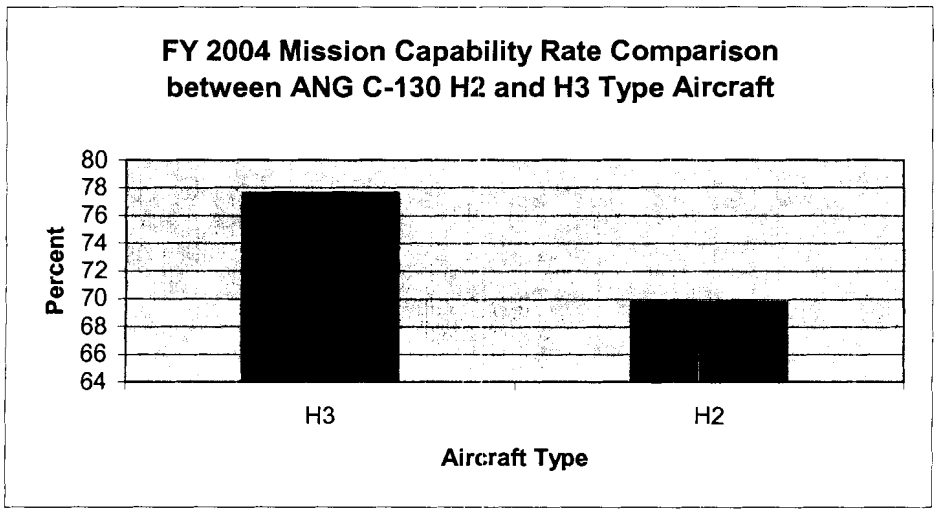
Gain Acft
Yeager



H2 Units with 8 Aircraft	
Unit	FY2004
Cheyenne Mncpl. Apt. AGS, WY	79.8
Carswell ARS, NAS Fort Worth Joint Reserve	77.3
Charlotte/Douglas IAP AGS	75.7
Yeager Apt. AGS, WV	74.2
Greater Peoria Regional Apt. AGS	73.7
Savannah IAP AGS	71.7
Quonset State Apt. AGS	67.3
Rosecrans Memorial Apr. AGS, MO	66.5
Channel Islands AGS, CA	65.1
Louisville IAP AGS	63.3

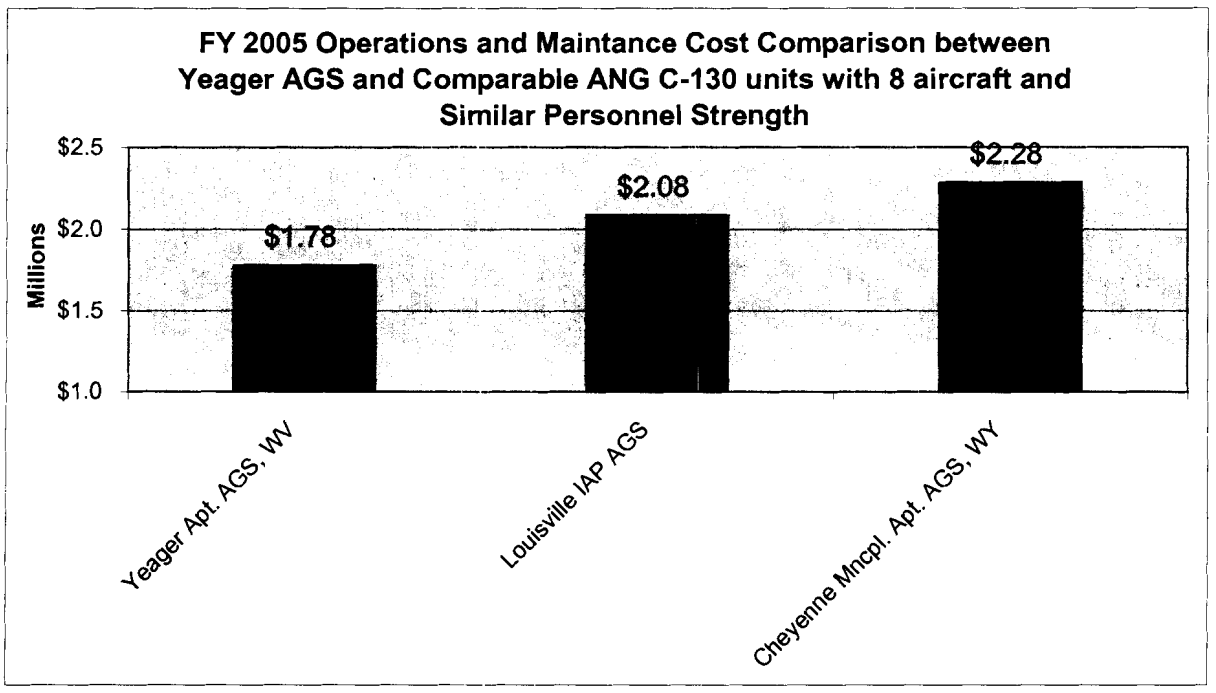
Source: https://guardian.drc.com/AircraftMaintenance/AircraftMaintenanceHome.asp

Gain Acft
Yeager



Aircraft Type	FY2004
H3	77.6
H2	69.8

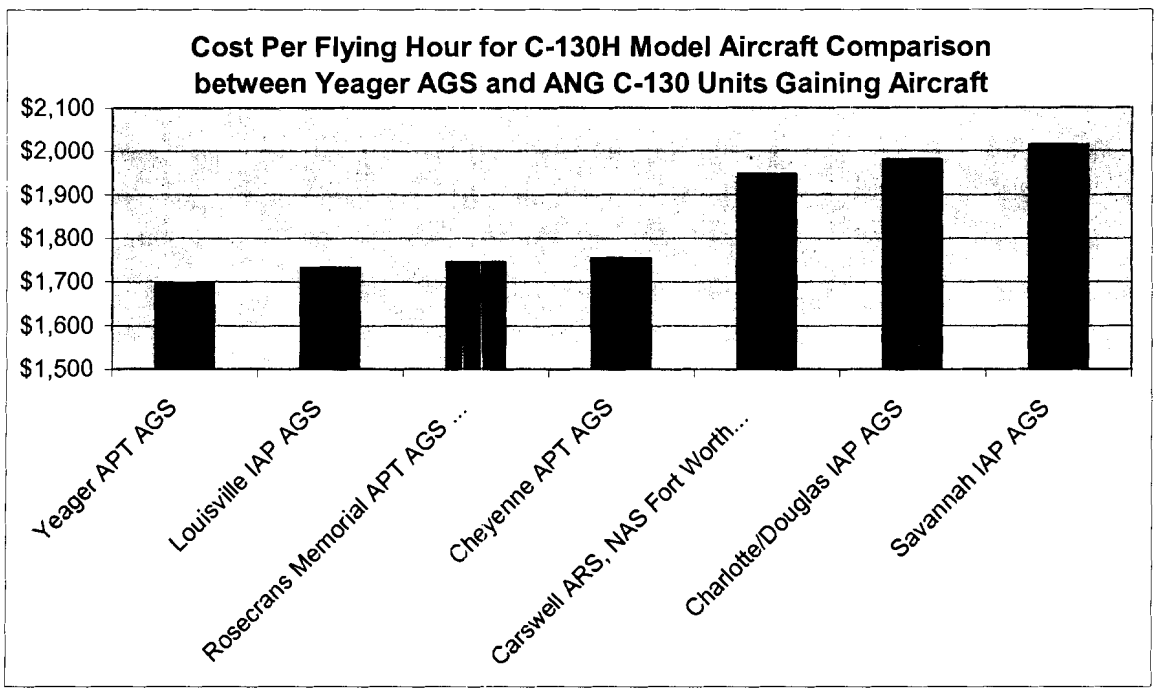
Source: https://guardian.drc.com/AircraftMaintenance/AircraftMaintenanceHome.asp



Unit	FY 05
Yeager Apt. AGS, WV	$1,777,600
Louisville IAP AGS	$2,081,700
Cheyenne Mncpl. Apt. AGS, WY	$2,282,000

Gain Acft
Yeager

Source: GAFS - Air Force General Accounting and Finance System

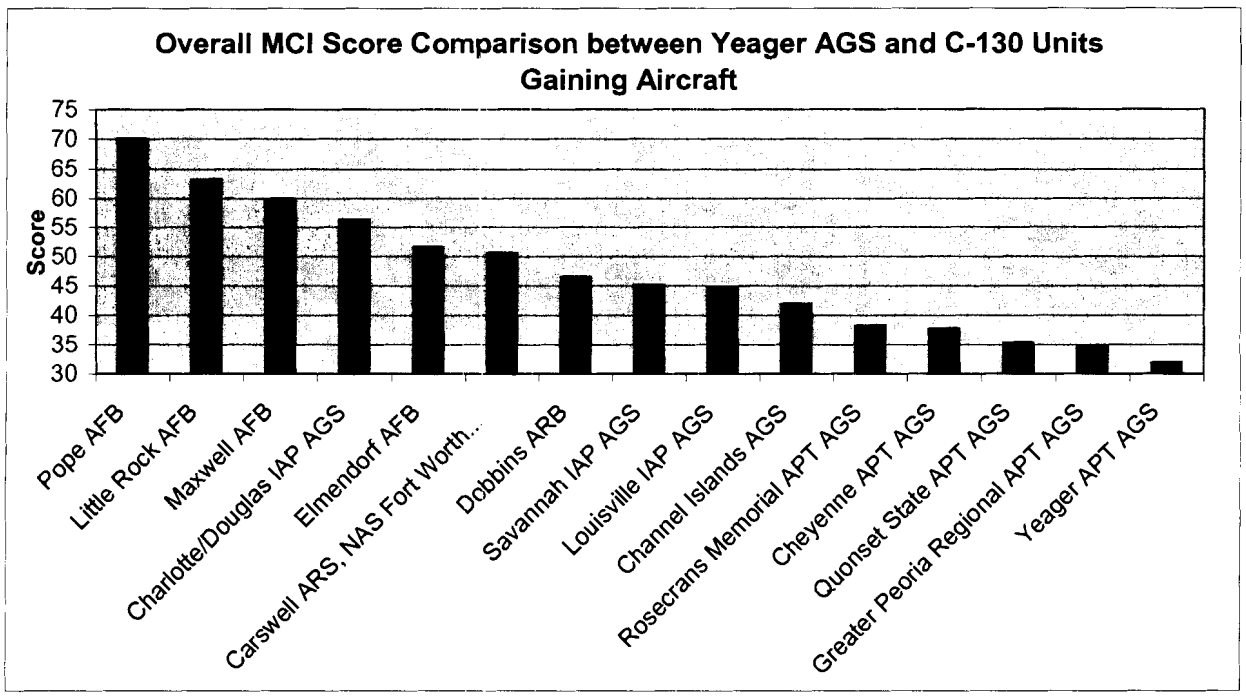


Base	Cost
Yeager APT AGS	$1,696.59
Louisville IAP AGS	$1,731.76
Rosecrans Memorial APT AGS (St Joe)	$1,745.00
Cheyenne APT AGS	$1,753.47
Carswell ARS, NAS Fort Worth Joint Reserve	$1,946.82
Charlotte/Douglas IAP AGS	$1,980.06
Savannah IAP AGS	$2,013.05

CPFH includes: PMEL, Fuel, Tools, Parts, Equipment, Latrine Service, etc. All consumable items directly related to aircraft, aircraft maintenance and the production of sorties and/or flying operations are CPFH expenses. Additionally, aircrew gear/equipment required to perform aircrew duties are CPFH expenses. All items that fall in these categories, whether they are on the aircraft or stored off the aircraft are CPFH expenses. Further, some Non-Fly Aviation Fuel (AVFUEL) used in support of flying operations is a CPFH expense. Items in the FSG Exclusion list are not authorized to be bought in the flying hour program. In the FM Guidance is a statement regarding permanently Waived Items.

Source: Source: https://logistics.ang.af.mil/LGY/LGYR/distribution/distribution.asp

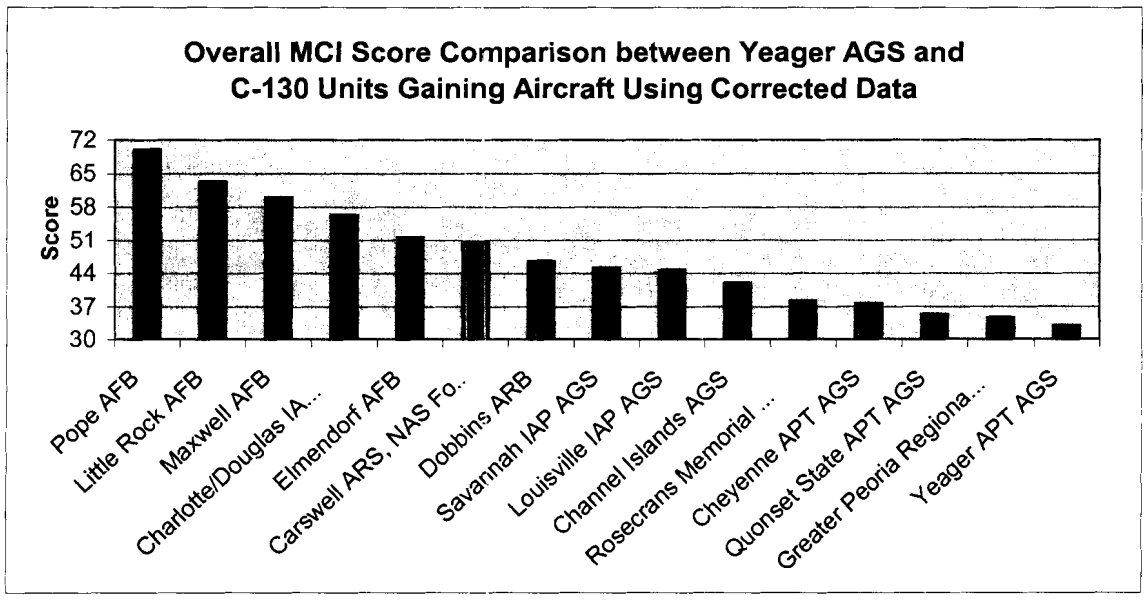
Gain Acft
Yeager



BASE	Overall MCI Score
Pope AFB	69.99
Little Rock AFB	63.25
Maxwell AFB	59.90
Charlotte/Douglas IAP AGS	56.27
Elmendorf AFB	51.60
Carswell ARS, NAS Fort Worth Joint Reserve	50.57
Dobbins ARB	46.50
Savannah IAP AGS	45.10
Louisville IAP AGS	44.66
Channel Islands AGS	41.92
Rosecrans Memorial APT AGS	38.22
Cheyenne APT AGS	37.65
Quonset State APT AGS	35.29
Greater Peoria Regional APT AGS	34.56
Yeager APT AGS	31.90

Source: BRAC Document: VAirForce-o.PDF

Gain Acft
Yeager



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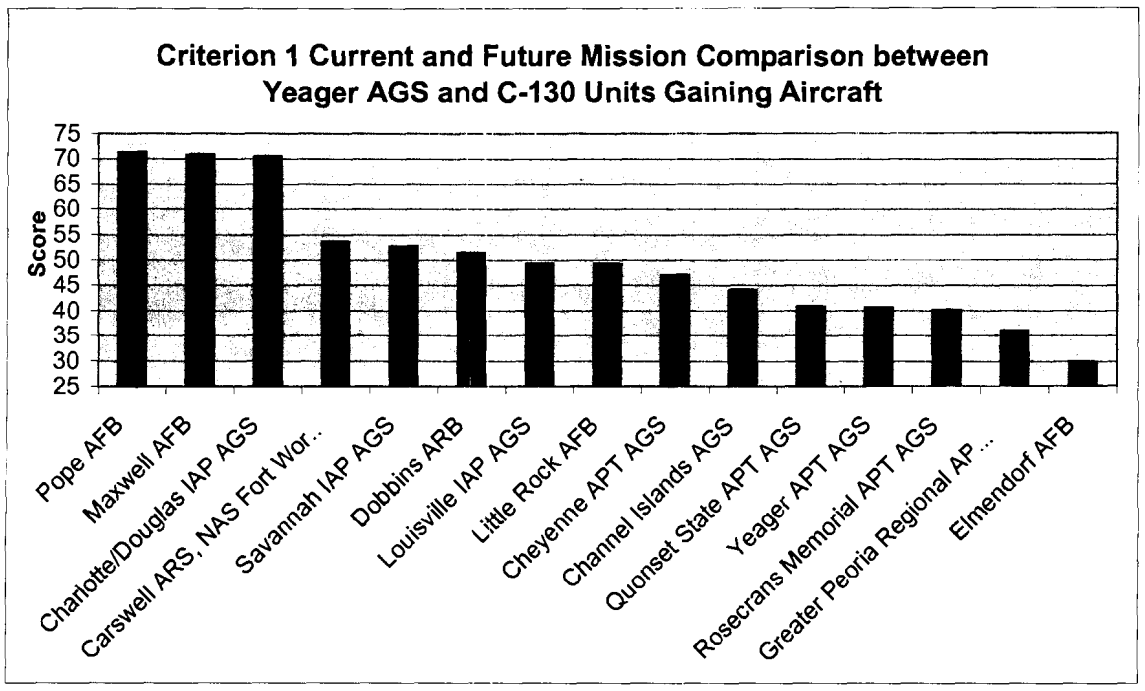
Maxwell AFB	59.90
Charlotte/Douglas IAP AGS	56.27
Elmendorf AFB	51.60
Carswell ARS, NAS Fort Worth Joint Reserve	50.57
Dobbins ARB	46.50
Savannah IAP AGS	45.10
Louisville IAP AGS	44.66
Channel Islands AGS	41.92
Rosecrans Memorial APT AGS	38.22
Cheyenne APT AGS	37.65
Quonset State APT AGS	35.29
Greater Peoria Regional APT AGS	34.56
Yeager APT AGS	32.90

Source: BRAC Document: VAirForce-o.PDF and current Data from the 130th AW

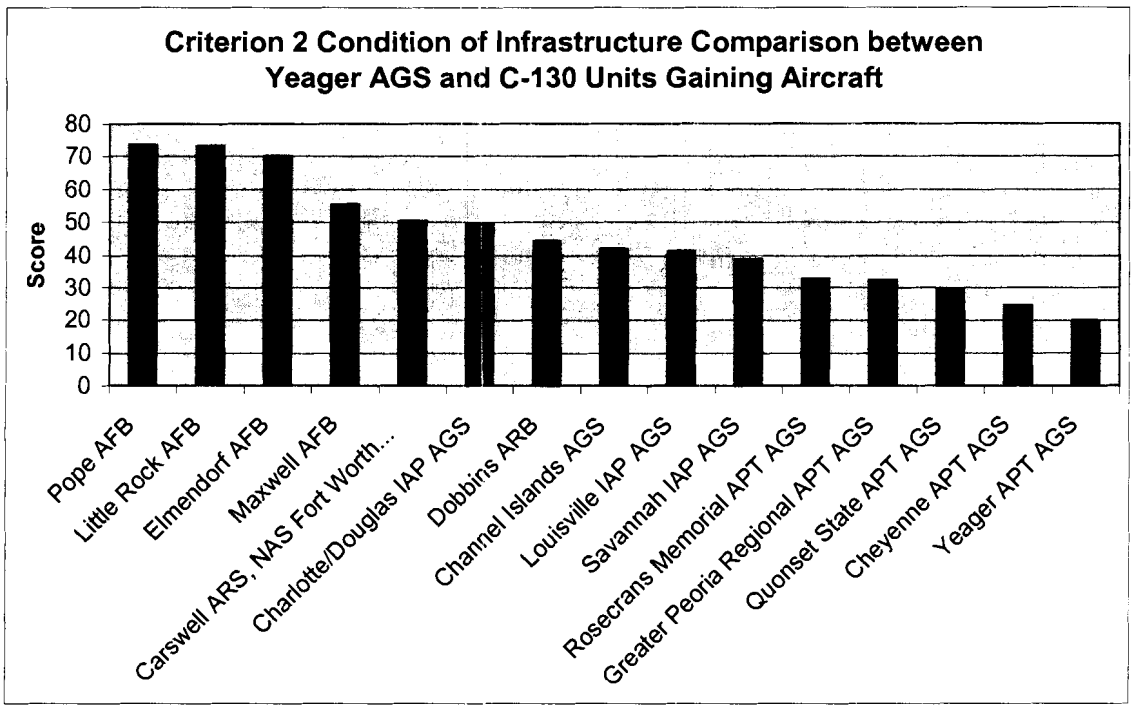
Gain Acft
Yeager



BASE	Crt 1 Current and Future Mission
Pope AFB	71.21
Maxwell AFB	70.78
Charlotte/Douglas IAP AGS	70.45
Carswell ARS, NAS Fort Worth Joint Reserve	53.62
Savannah IAP AGS	52.68
Dobbins ARB	51.35
Louisville IAP AGS	49.33
Little Rock AFB	49.25
Cheyenne APT AGS	46.92
Channel Islands AGS	44.04
Quonset State APT AGS	40.77
Yeager APT AGS	40.64
Rosecrans Memorial APT AGS	40.01
Greater Peoria Regional APT AGS	35.77
Elmendorf AFB	29.97

Source: BRAC Document: VAirForce-o.PDF

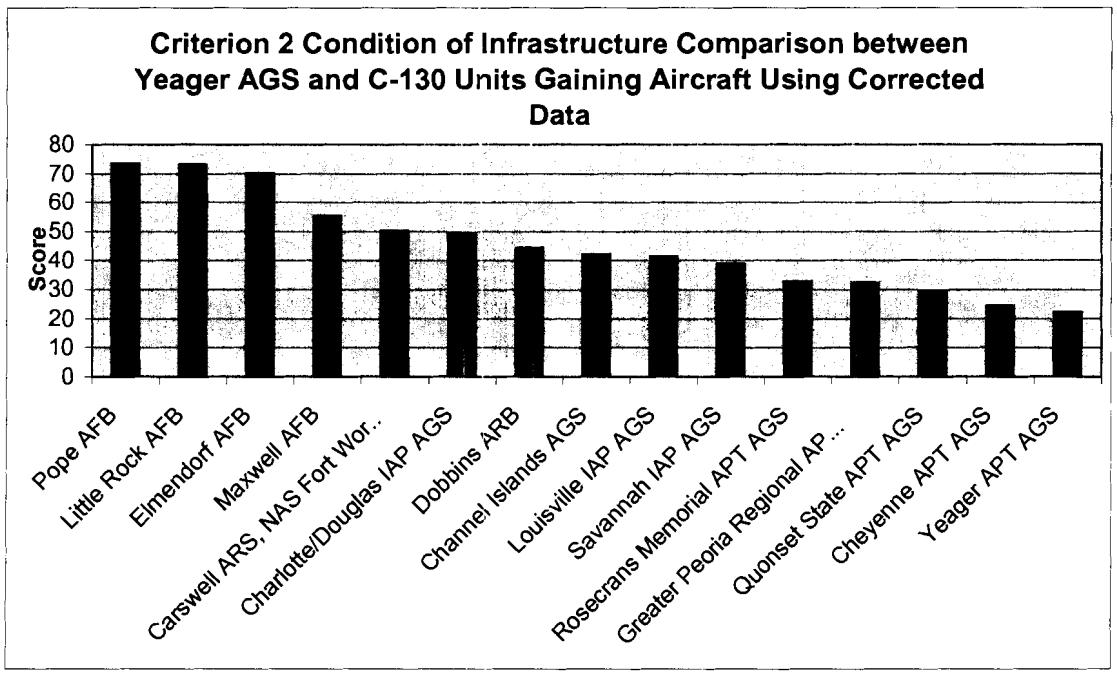
Gain Acft
Yeager



BASE	Crt 2 Condition of Infra-structure
Pope AFB	73.40
Little Rock AFB	73.05
Elmendorf AFB	70.05
Maxwell AFB	55.31
Carswell ARS, NAS Fort Worth Joint Reserve	50.30
Charlotte/Douglas IAP AGS	49.46
Dobbins ARB	44.38
Channel Islands AGS	42.05
Louisville IAP AGS	41.32
Savannah IAP AGS	38.84
Rosecrans Memorial APT AGS	32.73
Greater Peoria Regional APT AGS	32.28
Quonset State APT AGS	29.32
Cheyenne APT AGS	24.30
Yeager APT AGS	19.79

Source: BRAC Document: VAirForce-o.PDF

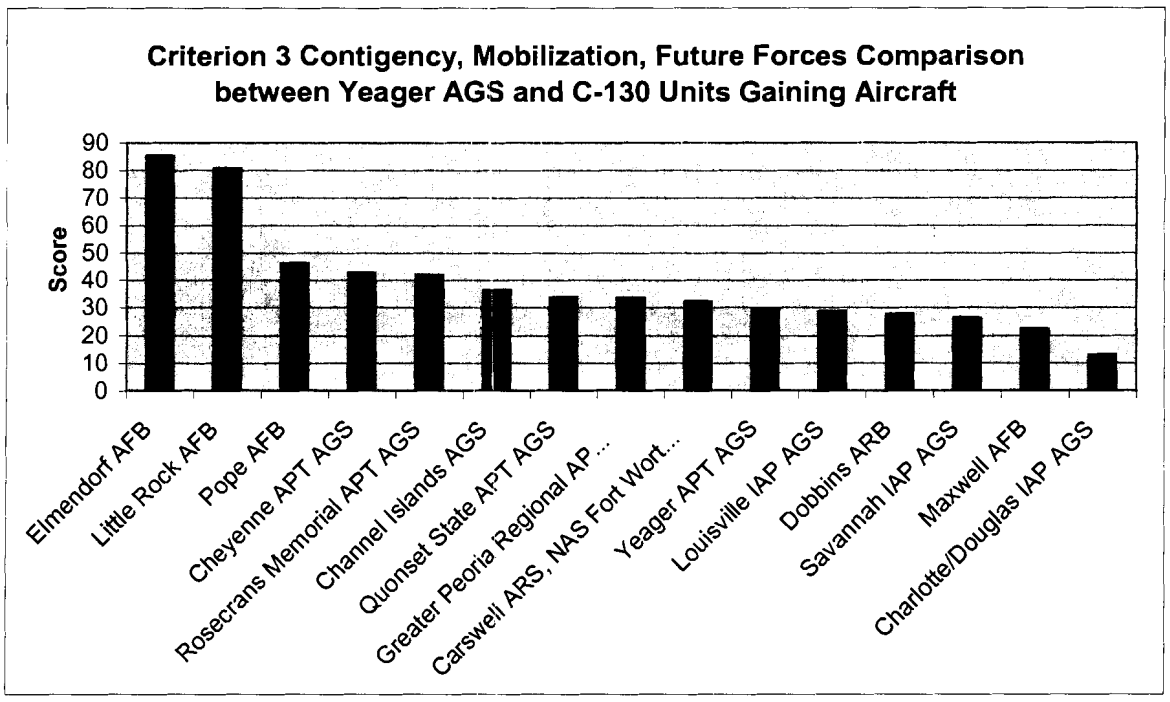
Gain Acft
Yeager



BASE	Crt 2 Condition of Infra-structure
Pope AFB	73.40
Little Rock AFB	73.05
Elmendorf AFB	70.05
Maxwell AFB	55.31
Carswell ARS, NAS Fort Worth Joint Reserve	50.30
Charlotte/Douglas IAP AGS	49.46
Dobbins ARB	44.38
Channel Islands AGS	42.05
Louisville IAP AGS	41.32
Savannah IAP AGS	38.84
Rosecrans Memorial APT AGS	32.73
Greater Peoria Regional APT AGS	32.28
Quonset State APT AGS	29.32
Cheyenne APT AGS	24.30
Yeager APT AGS	22.19

Source: BRAC Document: VAirForce-o.PDF and current Data from the 130th AW

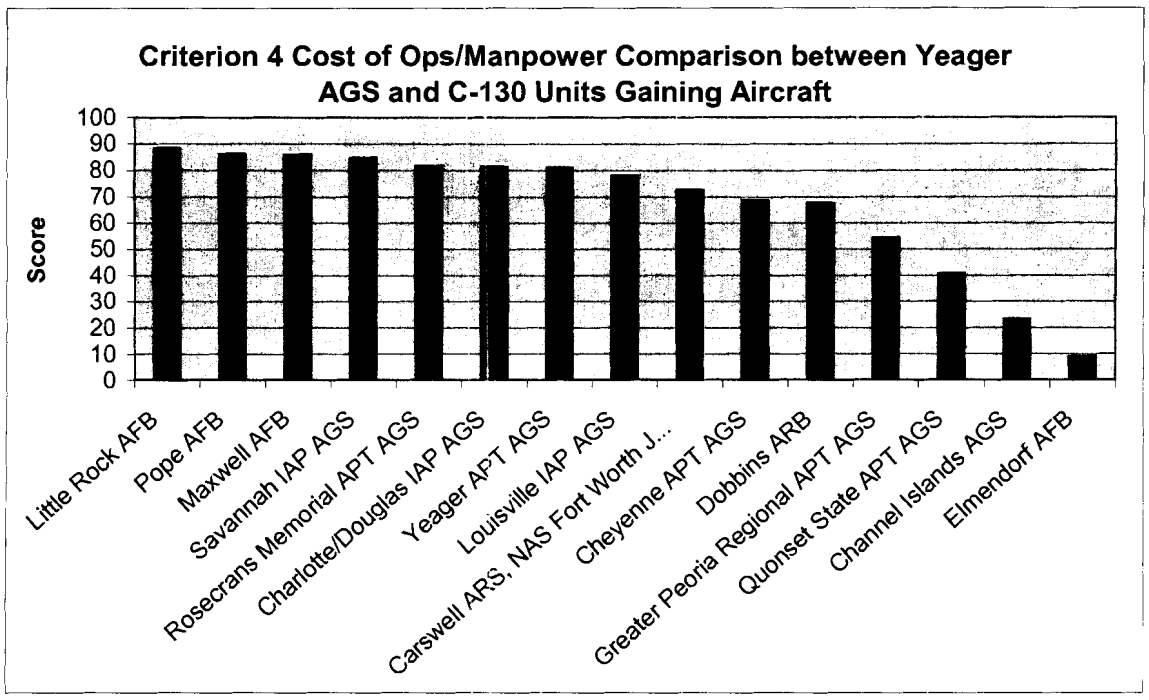
Gain Acft
Yeager



BASE	Crt 3 Contigency, Mobilization, Future Forces
Elmendorf AFB	85.17
Little Rock AFB	80.66
Pope AFB	46.19
Cheyenne APT AGS	42.72
Rosecrans Memorial APT AGS	41.97
Channel Islands AGS	36.32
Quonset State APT AGS	33.62
Greater Peoria Regional APT AGS	33.46
Carswell ARS, NAS Fort Worth Joint Reserve	32.08
Yeager APT AGS	29.70
Louisville IAP AGS	28.67
Dobbins ARB	27.71
Savannah IAP AGS	26.30
Maxwell AFB	22.48
Charlotte/Douglas IAP AGS	12.94

Source: BRAC Document: VAirForce-o.PDF

Gain Acft
Yeager



BASE	Crt 4 Cost of Ops/ Manpower
Little Rock AFB	88.12
Pope AFB	86.08
Maxwell AFB	85.68
Savannah IAP AGS	84.65
Rosecrans Memorial APT AGS	81.65
Charlotte/Douglas IAP AGS	81.48
Yeager APT AGS	81.12
Louisville IAP AGS	78.10
Carswell ARS, NAS Fort Worth Joint Reserve	72.70
Cheyenne APT AGS	68.70
Dobbins ARB	67.58
Greater Peoria Regional APT AGS	54.24
Quonset State APT AGS	40.59
Channel Islands AGS	23.21
Elmendorf AFB	8.86

Source: BRAC Document: VAirForce-o.PDF

Gain Acft
Yeager

Overall MCI for All Units With C-130's

BASE	Overall MCI Score	Crt 1 Current and Future Mission	Crt 2 Condition of Infra-structure	Crt 3 Contigency, Mobilization, Future Forces	Crt 4 Cost of Ops/ Manpower
Pope AFB	69.99	71.21	73.40	46.19	86.08
Little Rock AFB	63.25	49.25	73.05	80.66	88.12
Maxwell AFB	59.90	70.78	55.31	22.48	85.68
Charlotte/Douglas IAP AGS	56.27	70.45	49.46	12.94	81.48
Elmendorf AFB	51.60	29.97	70.05	85.17	8.86
Carswell ARS, NAS Fort Worth Joint Reserve	50.57	53.62	50.30	32.08	72.70
Dobbins ARB	46.50	51.35	44.38	27.71	67.58
Savannah IAP AGS	45.10	52.68	38.84	26.30	84.65
Louisville IAP AGS	44.66	49.33	41.32	28.67	78.10
Channel Islands AGS	41.92	44.04	42.05	36.32	23.21
Rosecrans Memorial APT AGS	38.22	40.01	32.73	41.97	81.65
Cheyenne APT AGS	37.65	46.92	24.30	42.72	68.70
Quonset State APT AGS	35.29	40.77	29.32	33.62	40.59
Greater Peoria Regional APT AGS	34.56	35.77	32.28	33.46	54.24
Yeager APT AGS	31.90	40.64	19.79	29.70	81.12
Kulis AGS	38.93	43.14	42.67	11.81	8.01
Boise Air Terminal AGS	47.32	46.89	46.65	44.25	78.40
Dyess AFB	65.95	54.87	76.82	68.94	77.64
Gen Mitchell IAP ARS	33.77	40.89	24.50	32.87	59.94
Mansfield Lahm MAP AGS	37.28	42.33	33.50	20.60	74.01
Martin State APT AGS	30.37	50.13	10.15	16.26	58.71
Nashville IAP AGS	39.77	48.71	27.61	39.33	78.64
New Castle County Airport AGS	36.96	48.83	28.33	15.48	47.53
Niagara Falls IAP ARS	40.03	35.85	43.28	41.92	55.66
Peterson AFB	57.20	58.40	59.78	39.75	61.91
Pittsburgh IAP ARS	39.64	36.28	42.44	36.01	69.59
Reno-Tahoe IAP AGS	40.51	44.93	39.29	23.44	47.47
Schenectady County APT AGS	37.72	49.21	25.33	30.66	60.05
Will Rogers World APT AGS	47.79	56.31	37.47	42.22	84.80
Willow Grove ARS, NAS Willow Grove Joint Reserve	35.85	43.92	32.22	12.92	39.74
Yeager APT AGS	31.90	40.64	19.79	29.70	81.12
Ellyra Sheppard AGS	33.11	47.05	17.83	22.37	73.39
Hickam AFB	49.77	34.58	66.93	60.50	1.12
Keesler AFB	46.80	64.62	29.62	26.47	85.30
Luis Munoz Marin IAP AGS	36.78	42.16	38.47	10.74	14.06
Minn/St Paul IAP ARS	41.52	32.19	52.63	36.80	47.69
Youngstown-Warren Regional APT ARS	40.09	40.95	38.26	35.23	73.97

Source: BRAC Document: VAirForce-o.PDF

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

Units that Support JA/ATT at POPE AFB

Eastern US	
Unit	Base
43rd	Pope AFB
[illegible]th	Charlotte/Douglas IAP AGS
123rd	Louisville IAP AGS
130th	Yeager APT AGS
913th	Willow Grove ARS, NAS Willow Grove Joint Reserve
911th	Pittsburgh IAP ARS
166th	New Castle County Airport AGS
910th	Youngstown-Warren Regional APT ARS

ALL	
Unit	BASE
43rd	Pope AFB
189th, 463rd	Little Rock AFB
182nd	Greater Peoria Regional APT AGS
146th	Channel Islands AGS
145th	Charlotte/Douglas IAP AGS
136th	Carswell ARS, NAS Fort Worth Joint Reserve
123rd	Louisville IAP AGS
130th	Yeager APT AGS
913th	Willow Grove ARS, NAS Willow Grove Joint Reserve
911th	Pittsburgh IAP ARS
440th	Gen Mitchell IAP ARS
317th	Dyess AFB
166th	New Castle County Airport AGS
137th	Will Rogers World APT AGS
124th	Boise Air Terminal AGS
910th	Youngstown-Warren Regional APT ARS
403rd	Keesler AFB
[illegible]7th	Ewvra Sheppard AGS
[illegible]th	Luis Munoz Marin IAP AGS
133rd	Minn/St Paul IAP ARS

Source: https://private.amc.af.mil/JAATT

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

Unit Aircraft before and after BRAC

Unit	Base	Current Acft	Realigned to
165th	Savannah IAP AGS	8	12
145th	Charlotte/Douglas IAP AGS	9	12
[illegible]th	Carswell ARS, NAS Fort Worth Joint Reserve	8	12
[illegible]3rd	Cheyenne APT AGS	8	12
139th	Rosecrans Memorial APT AGS (St Joe)	8	12
123rd	Louisville IAP AGS	9	12
130th	Yeager APT AGS	8	0
94th	Dobbins ARB	8	12
908th	Maxwell AFB	8	12
43rd	Pope AFB	28	16
3rd	Elmendorf AFB	0	12
189th, 463	Little Rock AFB	74	116
182nd	Greater Peoria Regional APT AGS	8	12
146th	Channel Islands AGS	9	12
143rd	Quonset State APT AGS (Rhode Island))	8	11
302nd	Peterson AFR	12	16
913th	Willow Grove ARS, NAS Willow Grove Joint Reserve	9	0
911th	Pittsburgh IAP ARS	8	0
179th	Mansfield Lahm MAP AGS	8	0
175th	Martin State APT AGS	8	0
166th	New Castle County Airport AGS	8	0
118th	Nashville IAP AGS	9	0
910th	Youngstown-Warren Regional APT ARS	12	12

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

Source: BRAC Document: State by State Installation View

State	MPF	April FY 2005 Data									Current Status
		Enlisted			Officer			Overall TOTAL			
		Auth	Asgn	Pct	Auth	Asgn	Pct	Auth	Asgn	Pct	
GU	G1	249	303	121.7%	25	24	96.0%	274	327	119.3%	Green
OH	J4	1047	1146	109.5%	130	113	86.9%	1177	1259	107.0%	Green
LA	D9	1263	1373	108.7%	162	139	85.8%	1425	1512	106.1%	Green
OH	J6	832	901	108.3%	144	128	88.9%	976	1029	105.4%	Green
WI	N2	721	762	105.7%	115	117	101.7%	836	879	105.1%	Green
WI	M9	1138	1203	105.7%	147	146	99.3%	1285	1349	105.0%	Green
MN	F3	1028	1104	107.4%	215	198	92.1%	1243	1302	104.7%	Green
IN	D3	860	910	105.8%	96	86	89.6%	956	996	104.2%	Green
MN	F4	889	925	104.0%	102	102	100.0%	991	1027	103.6%	Green
WV	M7	820	856	104.4%	164	158	96.3%	984	1014	103.0%	Green
OH	J3	1281	1341	104.7%	211	196	92.9%	1492	1537	103.0%	Green
MI	E8	938	960	102.3%	138	138	100.0%	1076	1098	102.0%	Green
IA	D5	844	873	103.4%	124	113	91.1%	968	986	101.9%	Green
SD	L3	884	900	101.8%	113	114	100.9%	997	1014	101.7%	Green
TN	L6	1019	1047	102.7%	165	156	94.5%	1184	1203	101.6%	Green
MI	E9	1493	1536	102.9%	197	171	86.8%	1690	1707	101.0%	Green
FL	C2	1705	1760	103.2%	261	222	85.1%	1966	1982	100.8%	Green
IA	D4	881	889	100.9%	125	123	98.4%	1006	1012	100.6%	Green
OK	J9	1078	1109	102.9%	203	178	87.7%	1281	1287	100.5%	Green
WV	M8	984	1021	103.8%	196	160	81.6%	1180	1181	100.1%	Green
VA	M4	1105	1120	101.4%	148	131	88.5%	1253	1251	99.8%	Green
NE	G4	779	780	100.1%	165	160	97.0%	944	940	99.6%	Green
WA	M5	970	964	99.4%	127	124	97.6%	1097	1088	99.2%	Green
IL	C8	995	1000	100.5%	128	113	88.3%	1123	1113	99.1%	Green
KS	D7	791	792	100.1%	140	129	92.1%	931	921	98.9%	Green
IN	D2	933	933	100.0%	124	109	87.9%	1057	1042	98.6%	Green
CO	B6	1191	1176	98.7%	218	212	97.2%	1409	1388	98.5%	Green
AZ	A6	1415	1404	99.2%	172	159	92.4%	1587	1563	98.5%	Green
OH	J7	1106	1090	98.6%	114	109	95.6%	1220	1199	98.3%	Green
NJ	G8	884	879	99.4%	104	91	87.5%	988	970	98.2%	Green
NY	H3	1478	1451	98.2%	144	140	97.2%	1622	1591	98.1%	Green
CA	B4	949	950	100.1%	138	116	84.1%	1087	1066	98.1%	Green
PA	K6	915	903	98.7%	108	99	91.7%	1023	1002	97.9%	Green
KY	D8	1026	1002	97.7%	177	170	96.0%	1203	1172	97.4%	Green
NM	H2	849	844	99.4%	140	118	84.3%	989	962	97.3%	Green
OR	K3	1271	1228	96.6%	139	143	102.9%	1410	1371	97.2%	Green
PR	K8	1120	1111	99.2%	181	154	85.1%	1301	1265	97.2%	Green
MO	G2	889	868	97.6%	153	143	93.5%	1042	1011	97.0%	Green
NV	G5	901	889	98.7%	167	147	88.0%	1068	1036	97.0%	Green
NY	H6	702	685	97.6%	110	102	92.7%	812	787	96.9%	Green
IL	C7	759	736	97.0%	104	99	95.2%	863	835	96.8%	Green
OK	K2	1018	983	96.6%	115	112	97.4%	1133	1095	96.6%	Yellow
AR	A7	965	927	96.1%	165	164	99.4%	1130	1091	96.5%	Yellow
MS	F7	901	875	97.1%	156	143	91.7%	1057	1018	96.3%	Yellow
AZ	A5	894	845	94.5%	146	156	106.8%	1040	1001	96.3%	Yellow
TX	L8	1000	974	97.4%	167	149	89.2%	1167	1123	96.2%	Yellow
ND	J2	913	886	97.0%	125	110	88.0%	1038	996	96.0%	Yellow
CA	B5	1167	1140	97.7%	237	206	86.9%	1404	1346	95.9%	Yellow
KS	D6	1168	1139	97.5%	172	145	84.3%	1340	1284	95.8%	Yellow
NC	H9	1344	1286	95.7%	239	229	95.8%	1583	1515	95.7%	Yellow
IL	C9	1098	1068	97.3%	161	135	83.9%	1259	1203	95.6%	Yellow
AR	A8	889	854	96.1%	103	93	90.3%	992	947	95.5%	Yellow
MD	E3	1451	1395	96.1%	247	225	91.1%	1698	1620	95.4%	Yellow
OR	K1	689	677	98.3%	86	62	72.1%	775	739	95.4%	Yellow
PA	K7	1312	1268	96.6%	191	165	86.4%	1503	1433	95.3%	Yellow
TX	L7	899	865	96.2%	124	107	86.3%	1023	972	95.0%	Yellow
VA	B2	847	805	95.0%	99	90	90.9%	946	895	94.6%	Red
NY	H7	1256	1178	93.8%	240	236	98.3%	1496	1414	94.5%	Red
HI	C5	2176	2083	95.7%	294	244	83.0%	2470	2327	94.2%	Red

SC	L2	1112	1044	93.9%	132	125	94.7%	1244	1169	94.0%	Red
NH	G6	859	809	94.2%	135	123	91.1%	994	932	93.8%	Red
NJ	G7	1201	1120	93.3%	195	188	96.4%	1396	1308	93.7%	Red
ID	C6	1259	1192	94.7%	183	153	83.6%	1442	1345	93.3%	Red
O	F8	1342	1277	95.2%	267	223	83.5%	1609	1500	93.2%	Red
PA	K4	1522	1429	93.9%	263	230	87.5%	1785	1659	92.9%	Red
NY	H8	1058	959	90.6%	240	239	99.6%	1298	1198	92.3%	Red
AL	A2	1207	1118	92.6%	153	135	88.2%	1360	1253	92.1%	Red
MS	F6	1402	1284	91.6%	215	204	94.9%	1617	1488	92.0%	Red
MT	G3	980	904	92.2%	121	108	89.3%	1101	1012	91.9%	Red
ME	E2	1068	963	90.2%	141	139	98.6%	1209	1102	91.1%	Red
UT	M2	1354	1230	90.8%	189	171	90.5%	1543	1401	90.8%	Red
VT	M3	914	825	90.3%	116	110	94.8%	1030	935	90.8%	Red
NY	H4	771	700	90.8%	133	119	89.5%	904	819	90.6%	Red
TN	L4	1133	1031	91.0%	248	210	84.7%	1381	1241	89.9%	Red
DC	B9	1151	1030	89.5%	170	150	88.2%	1321	1180	89.3%	Red
GA	C4	1391	1250	89.9%	200	170	85.0%	1591	1420	89.3%	Red
TX	L9	1039	922	88.7%	126	111	88.1%	1165	1033	88.7%	Red
WA	M6	1009	889	88.1%	222	201	90.5%	1231	1090	88.5%	Red
RI	K9	1104	984	89.1%	179	149	83.2%	1283	1133	88.3%	Red
GA	C3	1403	1247	88.9%	218	183	83.9%	1621	1430	88.2%	Red
AL	A3	974	840	86.2%	125	118	94.4%	1099	958	87.2%	Red
CT	B7	1072	932	86.9%	139	118	84.9%	1211	1050	86.7%	Red
AK	A4	1330	1143	85.9%	250	221	88.4%	1580	1364	86.3%	Red
DE	B8	888	758	85.4%	201	177	88.1%	1089	935	85.9%	Red
MA	E7	979	838	85.6%	134	117	87.3%	1113	955	85.8%	Red
CA	B3	1220	1033	84.7%	208	190	91.3%	1428	1223	85.6%	Red
USVI	K8	67	59	88.1%	8	4	50.0%	75	63	84.0%	Red
AK	A9	563	477	84.7%	110	86	78.2%	673	563	83.7%	Red
TN	L5	1054	849	80.6%	126	117	92.9%	1180	966	81.9%	Red
WY	N3	1074	865	80.5%	190	166	87.4%	1264	1031	81.6%	Red
MA	E5	1067	844	79.1%	136	106	77.9%	1203	950	79.0%	Red
Grand TOTAL		**95536**	**91817**	**96.1%**	**14574**	**13182**	**90.4%**	**110110**	**104999**	**95.4%**	

LOUISVILLE

ROSECRANS

CARSWELL

CHANNEL ISLAND

CHARLOTTE

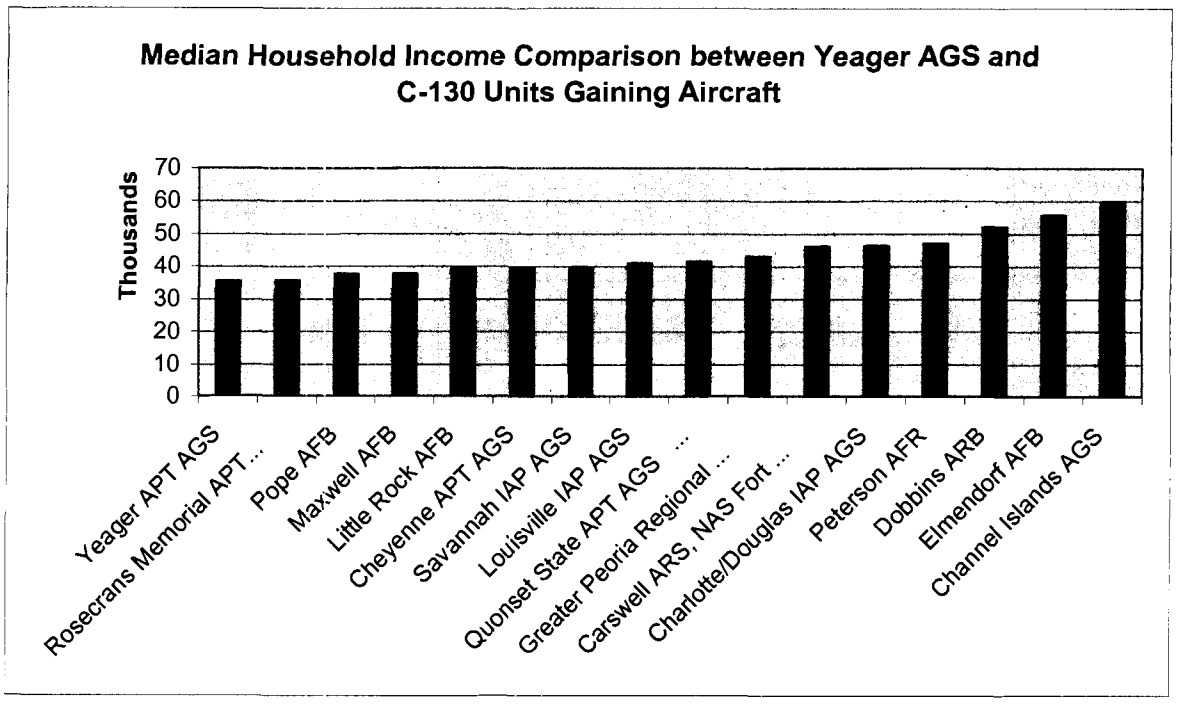
PEORIA

SAVANNAH

QUONSET

CHEYENNE

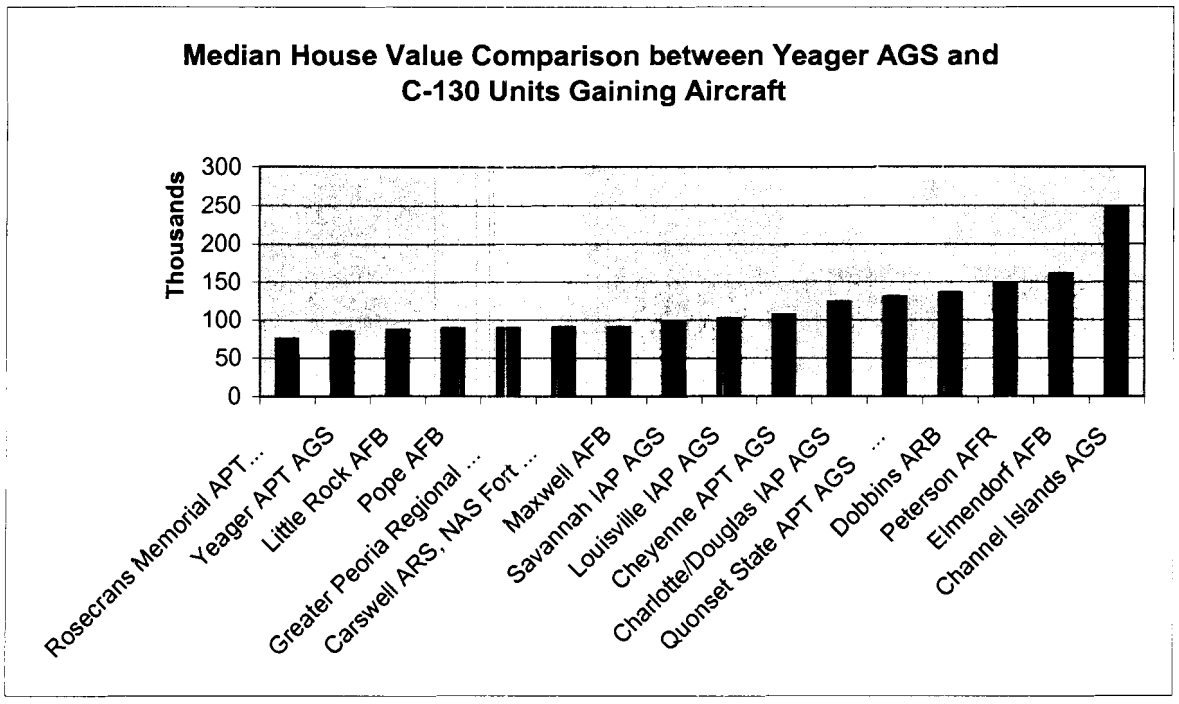
Unit	BASE	Retention	Strength	Population
94th	Dobbins ARB			4,509,540
908th	Maxwell AFB			
43rd	Pope AFB			
[illegible]	Elmendorf AFB			
189th, 463rd	Little Rock AFB	93.4	95.5%	
182nd	Greater Peoria Regional APT AGS	93.2	95.6%	366,302
165th	Savannah IAP AGS	93.3	89.3%	301,171
153rd	Cheyenne APT AGS	94.6	81.6%	83,033
146th	Channel Islands AGS	95.1	95.9%	781,159
145th	Charlotte/Douglas IAP AGS	93.6	95.7%	1,405,892
143rd	Quonset State APT AGS (Rhode Island))	93.9	88.3%	1,612,048
139th	Rosecrans Memorial APT AGS (St Joe)	94.9	97.0%	123,069
136th	Carswell ARS, NAS Fort Worth Joint Reserve	91.1	96.2%	1,809,504
123rd	Louisville IAP AGS	93.1	97.4%	1,180,294
130th	Yeager APT AGS	95	103.2%	306,544
914th	Niagara Falls IAP ARS			
913th	Willow Grove ARS, NAS Willow Grove Joint Reserve			
911th	Pittsburgh IAP ARS			
440th	Gen Mitchell IAP ARS			
317th	Dyess AFB			
302nd	Peterson AFB			
179th	Mansfield Lahm MAP AGS	95.3	105.4%	
176th	Kulis AGS	93.8	86.3%	
175th	Martin State APT AGS	93.5	95.4%	
166th	New Castle County Airport AGS	91.5	85.9%	
152nd	Reno-Tahoe IAP AGS	92.8	97.0%	
137th	Will Rogers World APT AGS	94.2	100.5%	
124th	Boise Air Terminal AGS	95.8	93.3%	
118th	Nashville IAP AGS			
109th	Schenectady County APT AGS		95.7%	
[illegible]th	Youngstown-Warren Regional APT ARS			
[illegible]rd	Keesler AFB			
167th	Ewvra Sheppard AGS	93.8	100.1%	
156th	Luis Munoz Marin IAP AGS	93.7	97.2%	
154th	Hickam AFB	94.8	94.2%	
133rd	Minn/St Paul IAP ARS	93.6	104.7%	



t	Base	Median Household Income (US Avg $41,994)	Median House Value (US Avg $119,600)	GS Locality Pay ("Rest of US" 10.9%)	O-3 with Dependents BAH Rate
130th	Yeager APT AGS	35418	84800	10.9	836
139th	Rosecrans Memorial APT AGS (St Joe)	35675	75400	10.9	757
43rd	Pope AFB	37466	88800	10.9	887
908th	Maxwell AFB	37619	90400	10.9	1137
189th, 463	Little Rock AFB	39145	87700	10.9	910
153rd	Cheyenne APT AGS	39607	106400	10.9	1160
165th	Savannah IAP AGS	39622	97500	10.9	1096
123rd	Louisville IAP AGS	40821	102300	10.9	999
143rd	Quonset State APT AGS (Rhode Island))	41462	130000	17	1785
182nd	Greater Peoria Regional APT AGS	42986	89000	10.9	1071
136th	Carswell ARS, NAS Fort Worth Joint Reserve	45962	90300	13.9	1237
145th	Charlotte/Douglas IAP AGS	46119	123300	10.9	1084
302nd	Peterson AFR	46844	147100	10.9	1166
94th	Dobbins ARB	51948	135300	12.6	1385
3rd	Elmendorf AFB	55546	160700	25	1775
146th	Channel Islands AGS	59666	248700	20.1	2010

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

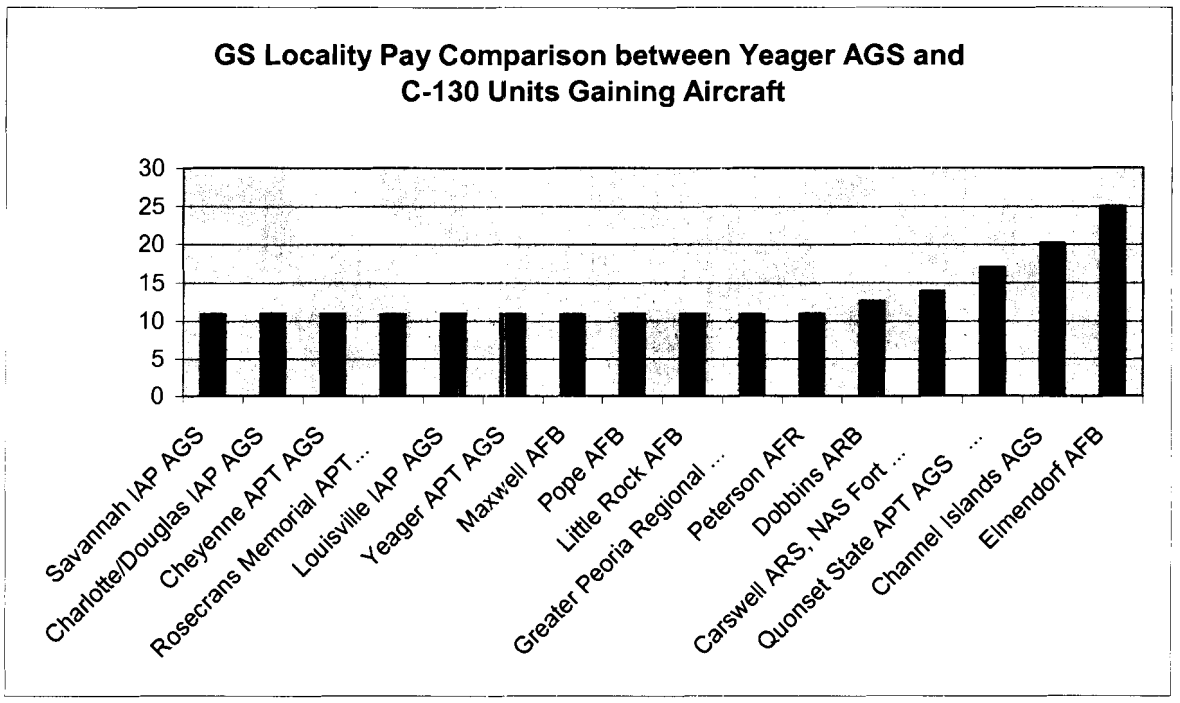
In-state Tuition for [illegible]mily [illegible]mber	In-state Tuition Continues if PCS Out of State
Yes	Yes
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	Yes
Yes	Yes
Yes	No
Yes	No
Yes	Yes
Yes	No
Yes	No
Yes	Yes
Yes	No
Yes	No



Unit	Base	Median Household Income (US Avg $41,994)	Median House Value (US Avg $119,600)	GS Locality Pay ("Rest of US" 10.9%)	O-3 with Dependents BAH Rate
[illegible]th	Rosecrans Memorial APT AGS (St Joe)	35675	75400	10.9	757
130th	Yeager APT AGS	35418	84800	10.9	836
189th, 463	Little Rock AFB	39145	87700	10.9	910
43rd	Pope AFB	37466	88800	10.9	887
182nd	Greater Peoria Regional APT AGS	42986	89000	10.9	1071
136th	Carswell ARS, NAS Fort Worth Joint Reserve	45962	90300	13.9	1237
908th	Maxwell AFB	37619	90400	10.9	1137
165th	Savannah IAP AGS	39622	97500	10.9	1096
123rd	Louisville IAP AGS	40821	102300	10.9	999
153rd	Cheyenne APT AGS	39607	106400	10.9	1160
145th	Charlotte/Douglas IAP AGS	46119	123300	10.9	1084
143rd	Quonset State APT AGS (Rhode Island))	41462	130000	17	1785
94th	Dobbins ARB	51948	135300	12.6	1385
302nd	Peterson AFR	46844	147100	10.9	1166
3rd	Elmendorf AFB	55546	160700	25	1775
146th	Channel Islands AGS	59666	248700	20.1	2010

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

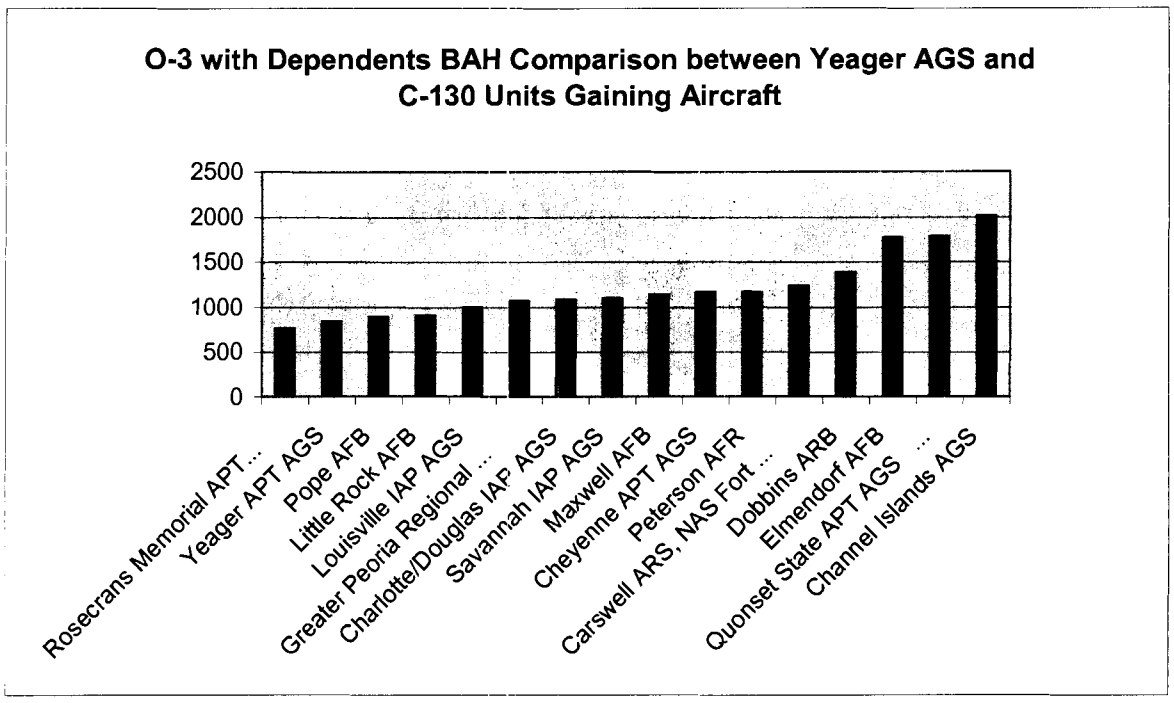
http://www.brac.gov/Supplemental.aspx



Unit	Base	Median Household Income (US Avg $41,994)	Median House Value (US Avg $119,600)	GS Locality Pay ("Rest of US" 10.9%)	O-3 with Dependents BAH Rate
[illegible]th	Savannah IAP AGS	39622	97500	10.9	1096
145th	Charlotte/Douglas IAP AGS	46119	123300	10.9	1084
153rd	Cheyenne APT AGS	39607	106400	10.9	1160
139th	Rosecrans Memorial APT AGS (St Joe)	35675	75400	10.9	757
123rd	Louisville IAP AGS	40821	102300	10.9	999
130th	Yeager APT AGS	35418	84800	10.9	836
908th	Maxwell AFB	37619	90400	10.9	1137
43rd	Pope AFB	37466	88800	10.9	887
189th, 463	Little Rock AFB	39145	87700	10.9	910
182nd	Greater Peoria Regional APT AGS	42986	89000	10.9	1071
302nd	Peterson AFR	46844	147100	10.9	1166
94th	Dobbins ARB	51948	135300	12.6	1385
136th	Carswell ARS, NAS Fort Worth Joint Reserve	45962	90300	13.9	1237
143rd	Quonset State APT AGS (Rhode Island))	41462	130000	17	1785
146th	Channel Islands AGS	59666	248700	20.1	2010
3rd	Elmendorf AFB	55546	160700	25	1775

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

http://www.brac.gov/Supplemental.aspx



Unit	Base	Median Household Income (US Avg $41,994)	Median House Value (US Avg $119,600)	GS Locality Pay ("Rest of US" 10.9%)	O-3 with Dependents BAH Rate
[illegible]th	Rosecrans Memorial APT AGS (St Joe)	35675	75400	10.9	757
130th	Yeager APT AGS	35418	84800	10.9	836
43rd	Pope AFB	37466	88800	10.9	887
189th, 463	Little Rock AFB	39145	87700	10.9	910
123rd	Louisville IAP AGS	40821	102300	10.9	999
182nd	Greater Peoria Regional APT AGS	42986	89000	10.9	1071
145th	Charlotte/Douglas IAP AGS	46119	123300	10.9	1084
165th	Savannah IAP AGS	39622	97500	10.9	1096
908th	Maxwell AFB	37619	90400	10.9	1137
153rd	Cheyenne APT AGS	39607	106400	10.9	1160
302nd	Peterson AFR	46844	147100	10.9	1166
136th	Carswell ARS, NAS Fort Worth Joint Reserve	45962	90300	13.9	1237
94th	Dobbins ARB	51948	135300	12.6	1385
3rd	Elmendorf AFB	55546	160700	25	1775
143rd	Quonset State APT AGS (Rhode Island))	41462	130000	17	1785
146th	Channel Islands AGS	59666	248700	20.1	2010

	Gain Aircraft
	Loss Aircraft - Realigned
	Loss Aircraft - Closed
	No Change

http://www.brac.gov/Supplemental.aspx

Military Value
BRAC Criterion #2
Condition of Infrastructure

The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.

My staff focused the review of Criterion #2 Value Elements in the Airlift Mission Area due to our efforts supporting the 130th Airlift Wing in Charleston; however, upon further research we found consistent results in the seven other measured Mission Areas as well.

For illustrative purposes measurement of value for Criterion #2 in the Airlift Mission Area is broken down as follows:

	Effective %
Condition of Infrastructure	41.50
Key Mission Infrastructure	33.20
Fuel Hydrant Systems Support Mission Growth	4.32
Ramp Area and Serviceability	5.98
Runway Dimension and Serviceability	5.98
Hangar Capability – Large Aircraft	3.32
Level of Mission Encroachment	1.66
Installation Pavements Quality	11.95
Operating Areas	8.30
Airspace Attributes of DZ/LZ	8.30

The scoring system for infrastructure, as noted in the Air Force (AF) Base Closure Executive Group (BCEG) meeting minutes, is slanted toward large active duty bases. For many of the questions in this criterion a base had to have an excessively large size in order to score any points at all. Obviously, this strongly favors large active duty installations and is biased against smaller Air National Guard bases. In the Airlift Category the scoring matrix awards no points for runway lengths less than 7,000 feet, ramp areas less than 137,000 square yards, bases with no fuel hydrant dispensing system, or bases not located within 150 miles of an approved drop zone or assault landing zone. Such scoring obviously encourages infrastructure larger than necessary for Air National Guard missions – a wasteful allocation of resources. According to the scoring matrix, this value counts for 41.5 percent of the overall unit military value; the heavy emphasis on this physical infrastructure minimizes focus in other areas like mission capable rates, low operating costs, aircrew proficiency, aircraft maintenance experience, and strength and retention levels. Our Air National Guard Wings are "right sized" to accomplish their missions today and most can easily expand without the excess requirement of maintaining over 137,000 square yards of ramp space and 7,000 feet of runway.

Other areas measured in Criteria #2 are Hangar Capability, Mission Encroachment, and Installation Pavements Quality. Again, for pavement quality if total ramp area is less than 137,000 square yards you receive 0 points regardless of the age, specification, or construction standard of ramp pavements.

As an example, an eight PAA C-130 unit is only authorized a maximum of 73,230 square yards of serviceable ramp space by Air National Guard Handbook (ANGH) 32-1084, ANG Standard Facility Requirements and would be in violation of standards in order to score any points in this measurement. But the other point that we feel needs to be made is that we **DON'T NEED** 137,000

square yards of ramp space to accomplish our mission with 8 aircraft. Nor, do we need 137,000 square yards to park 12 aircraft. In fact we can park 12 C-130s on our ramp space based on the standard for 8 aircraft. This is a qualitative element missing from the data in criterion #2. The runway criterion is another example of flawed measurement. Airlift units **DON'T NEED** a 7,000 foot runway as the 130th has proven by safely operating C-130s out of Yeager Airport since 1975. We've also had C-17s and C-5s regularly operate in and out of Yeager in support of multiple deployments and exercises.

Our research reflected the same results for all other Mission Areas. We looked at Criterion # 2 scores for every measured Air Force, Air National Guard, and Air Force Reserve Base in each of the eight mission areas: Airlift, Tanker, Fighter, Bomber, UAV (Unmanned Aerial Vehicles), SOF-CSAR (Special Operations Forces – Combat Search and Rescue), C2ISR (Command, Control, Intelligence, Surveillance, and Reconnaissance), and Space Operations and the results are very interesting. Following is a breakdown of the Top Fifty Bases rated on Criterion #2 by Mission Area. (keep in mind every base was rated in each mission area):

DISTRIBUTION OF THE TOP FIFTY BASES
Rated on Criterion #2 Condition of Infrastructure

MISSION AREA	ANG	AFR	ACTIVE DUTY
AIRLIFT	3	2	45
TANKER	2	2	46
FIGHTER	2	3	45
BOMBER	1	2	47
UAV	3	3	44
SOF-CSAR	3	3	44
C2ISR	4	2	44
SPACE OPS	2	1	47

As you see, regardless of Mission Area; small, compact Air National Guard bases were barely included in the top fifty ranking which is clearly dominated by Active Duty bases.

This data along with the analysis of AF BCEG minutes indicates that BRAC 2005 was aligned to the development of the USAF Future Total Force Plan rather than a true assessment of military value as legislatively mandated by the BRAC process. (Source: AF BCEG Minutes 10 Jul 03)

- Several times the AF BCEG received briefings on the Future Total Force Structure (Source: AF BCEG Minutes 12 Dec 03)
- During Maj Gen Heckman's briefing to the AF BCEG he refers to "expeditionary basing guidelines" and their relevance to military value (Source: AF BCEG Minutes 9 Jan 04)

  -- Specifically, Maj Gen Heckman states the need to "enable us to fight early on without the non-volunteer ARC (Air Reserve Component)" and that the "ARC must invest in new missions to sustain relevance". These statements are curious in nature given the date they were made (9 Jan 04) is prior to the first BRAC data call being issued to the Air Force. How can the co-chairman of the AF BCEG make statements of this kind without any validated information to support it? Many of the goals outlined by Maj Gen Heckman in his briefing are Air Force goals under their Future Total Force. It was during the same briefing that Maj Gen Heckman first proposed the military value attributes to be used during the deliberative process.
- Weighting of each criteria data was first discussed by the AF BCEG on 22 Jun 04 with Criterion #1 and #2 favored

heavily from the outset. (Source: AF BCEG Minutes 22 Jun 04)

- A Cueing Tool was used to assist the AF BCEG in developing potential scenarios for base closures and realignments. This tool was populated with data presented during the two capacity analysis briefings and with the weighted scores from the MCI data. Considering that the capacity data presented by the ANG was incorrect and the extraordinarily heavy weighting given to Criteria #1 and #2 (which favored large active duty installation), the ANG had many units identified as candidates for closure or realignment. (Source: AF BCEG Minutes 1 Nov 04)

In summary, the primary point to take away is that the data used in Criterion #2 overwhelming favors active duty bases with large infrastructure and with a weighted value of 41.5%, this score significantly affects the overall military value rating. This measurement ignores the value added by "right sized" Air National Guard bases structured to avoid excess infrastructure (i.e., billeting, clubs, and commissaries, etc.) in addition to inherent cost saving measures such as long-term leases (some for a little as $1.00 per year), use of commercial runways/taxiways, and FAA provided 24 hour Air Traffic Control. Even the Air Force Base Closure Executive Group (BCEG) admitted in their meeting minutes when looking at the pros and cons of these criteria that they overstated requirements and negatively impacted units with "right sized" infrastructure.

Criterion #2 - Distribution of Units in the Top Fifty by Mission Area					
	ANG	AFR	Active		
AIRLIFT	3	2	45		
TANKER	2	2	46		
FIGHTER	2	3	45		
BOMBER	1	2	47		
UAV	3	3	44		
SOF-CSAR	3	3	44		
C2ISR	4	2	44		
Space Ops	2	1	47		

UAV MCI	
Base	**Criteria 2 Condition of Infrastructure**
Seymour Johnson AFB	96.36
Charleston AFB	95.78
Robins AFB	95.77
Langley AFB	95.55
Mac Dill AFB	95.31
Pope AFB	94.48
Nellis AFB	94.28
Eglin AFB	93.05
Hurlburt Field	92.99
March ARB	92.57
Luke AFB	92.26
Davis-Monthan AFB	91.98
Dover AFB	91.58
Moody AFB	91.55
Mountian Home AFB	90.43
Kirtland AFB	89.98
Travis AFB	89.86
Homestead ARS	89.81
Boise Air Terminal AGS	89.79
Shaw AFB	89.79
Andrews AFB	89.66
Holloman AFB	89.43
Little Rock AFB	89.30
Mc Connell AFB	89.30
Whiteman AFB	88.66
Dyess AFB	88.59
Mc Chrod AFB	88.57
Barksdale AFB	88.46
Hill AFB	88.37
Tyndall AFB	88.33
Eielson AFB	88.26
Elmendorf AFB	87.82
Fairchild AFB	87.00
Hickam AFB	86.70
Dobbins ARB	86.19
Buckley AFB	86.13
Grand Forks AFB	85.56
Minot AFB	85.44
Vandenberg AFB	85.26
Beale AFB	85.11
Cannon AFB	85.08
Mc Entire AGS	85.06
Ellsworth AFB	84.97
Rosecrans Mem APT AGS	84.85
Anderson AFB	84.74
Tinker AFB	83.66
NAS New Orleans ARS	82.63
Edwards AFB	81.76
Mc Guire AFB	80.98
Otis AGB	80.20

Maxwell AFB	79.65
Wright-Patterson AFB	79.56
Selfriddge ANGB	79.38
Portland IAP AGS	79.05
W.K. Kellog APT AGS	78.63
Indian Springs AFS	76.69
Klamath Falls IAP AGS	75.86
Altus AFB	75.19
Columbus AFB	74.90
Jacksonville IAP AGS	74.37
Moffett Field AGS	74.29
Sheppard AFB	74.11
Ellington Field AGS	73.60
Pease IAP AGS	73.53
Fort Smith Reg APT AGS	72.52
Patrick AFB	72.47
Barnes MPT AGS	72.46
Atlantic City AGS	72.15
Des Moines IAP AGS	71.90
Hulman Reg APT AGS	71.62
Fresno Air Terminal AGS	71.07
Joe Foss Field AGS	70.92
Burlington IAP AGS	70.57
Scott AFB	70.28
Kulis AGS	70.19
Randolph AFB	70.15
Sooux Gateway APT AGS	69.82
Carswell ARS, NAS Fort Worth Joint Reserve	69.33
Willow Grove ARS, NAS Willow Grove Joint Reserve	69.03
Pittsburg IAP AGS	68.83
Dannelly Field AGS	67.44
Lackland AFB	66.89
Richmond IAP AGS	65.36
Tucson IAP AGS	65.12
Harrisburg IAP AGS	64.90
Capital APT AGS	64.41
Fort Wayne IAP AGS	63.53
Duluth IAP AGS	63.10
Hector IAP AGS	62.91
Greater Peoria Reg APT AGS	62.83
Offut AFB	62.60
Savannah IAP AGS	62.58
Great Falls IAP AGS	62.52
Grissom AFB	62.41
Will Rogers World APT AGS	62.09
Bradley IAP AGS	61.92
Luis Munoz IAP AGS	61.86
Reno-Tahoe IAP AGS	61.09
Stewart IAP AGS	61.08
Dane County Reg - Truax Field AGS	60.55
Toledo Express APT AGS	60.08
Westover ARB	59.24
Forbes Field AGS	59.05
Key Field AGS	59.02

Rickenbacker IAP AGS	58.14
Peterson AFB	58.08
Lambert-St. Louis AGS	57.75
Inn/St Paul IAP ARS	57.23
Martin State APT AGS	57.19
Niagara Falls IAP ARS	56.82
Tulsa IAP AGS	56.36
F.S. Gabreski APT AGS	56.21
Laughlin AFB	56.19
Mc Gee Tyson AGS	55.98
EWVRA Sheppard AGS	55.86
Bangor IAP AGS	55.18
Channel Islands AGS	54.31
Youngstown-Warrenn Regional APT ARS	54.07
Nashville IAP AGS	53.74
Vance AFB	53.58
Pittsburg IAP ARS	53.25
Charlotte/Douglas IAP AGS	53.11
Yeager AGS	52.44
Phoenix Sky Harbor IAP AGS	51.47
Memphis AGS	51.06
Gen Mitchell IAP ARS	50.83
Birmingham IAP AGS	50.79
Hancock Field AGS	50.44
Jackson IAP AGS	49.99
Springfield-Beckley MPT AGS	49.27
Kessler AFB	48.57
Salt Lake City IAP AGS	47.87
Quonset State APT AGS	47.67
New Castle County Airport AGS	46.97
Gen Mitchell IAP AGS	46.80
Louisville IAP AGS	45.97
Lincoln MAP AGS	45.90
Mansfield MAP AGS	45.19
Hanscom AFB	44.69
Arnold AFB	44.13
Schenectady County APT AGS	43.41
Cheyenne APT AGS	35.17
ARPC	3.50
Bolling AFB	3.50
Brooks-City Base	3.50
Cheynne Mountian AFS	3.50
F. E. Warren AFB	3.50
Goodfellow AFB	3.50
Los Angeles AFB	3.50
Malmstrom AFB	3.50
Onizuka AFS	3.50
Rome Laboratory	3.50
Schriever AFB	3.50
USAF Academy	3.50

Space Operation MCI	
Base	**Criteria 2 Condition of Infrastructure**
Anderson AFB	100.00
Andrews AFB	100.00
Arnold AFB	100.00
Barksdale AFB	100.00
Beale AFB	100.00
Brooks-City Base	100.00
Buckley AFB	100.00
Charleston AFB	100.00
Columbus AFB	100.00
Davis-Monthan AFB	100.00
Dyess AFB	100.00
Edwards AFB	100.00
Eglin AFB	100.00
Eielson AFB	100.00
Ellsworth AFB	100.00
Elmendorf AFB	100.00
F. E. Warren AFB	100.00
Grand Forks AFB	100.00
Hill AFB	100.00
Holloman AFB	100.00
Hurlburt Field	100.00
Kirtland AFB	100.00
Laughlin AFB	100.00
Little Rock AFB	100.00
Luke AFB	100.00
Malmstrom AFB	100.00
Mc Guire AFB	100.00
Minot AFB	100.00
Moody AFB	100.00
Mountian Home AFB	100.00
Nellis AFB	100.00
Offut AFB	100.00
Rome Laboratory	100.00
Schriever AFB	100.00
Sheppard AFB	100.00
Travis AFB	100.00
Tyndall AFB	100.00
Vandenberg AFB	100.00
Wright-Patterson AFB	100.00
Fairchild AFB	98.40
Fort Smith Reg APT AGS	98.40
Robins AFB	97.44
Goodfellow AFB	94.68
Cannon AFB	74.56
Westover ARB	74.00
Indian Springs AFS	73.79
Peterson AFB	71.60
Shaw AFB	69.80
Otis AGB	63.20
Mac Dill AFB	56.80

Scott AFB	56.14
Randolph AFB	56.00
Toledo Express APT AGS	54.00
Lackland AFB	52.09
Langley AFB	48.18
Hancock Field AGS	47.57
W.K. Kellog APT AGS	42.40
Hickam AFB	41.40
Grissom AFB	38.68
Atlantic City AGS	36.40
Tinker AFB	35.93
Seymour Johnson AFB	35.16
Yeager AGS	34.40
Mc Connell AFB	32.00
Whiteman AFB	28.92
Pease IAP AGS	28.80
Channel Islands AGS	26.40
Hanscom AFB	26.30
Selfriddge ANGB	26.12
Kulis AGS	24.61
Greater Peoria Reg APT AGS	23.77
Pope AFB	23.04
Mc Entire AGS	21.60
Martin State APT AGS	21.20
Mc Chrod AFB	20.00
Homestead ARS	19.20
Boise Air Terminal AGS	18.02
Dobbins ARB	16.80
Patrick AFB	13.50
Bangor IAP AGS	12.40
USAF Academy	12.40
Des Moines IAP AGS	11.59
March ARB	11.12
Savannah IAP AGS	10.06
Stewart IAP AGS	9.60
Will Rogers World APT AGS	9.60
Pittsburg IAP ARS	9.17
Joe Foss Field AGS	9.16
Harrisburg IAP AGS	9.12
Vance AFB	8.76
Charlotte/Douglas IAP AGS	8.63
Capital APT AGS	8.60
Dover AFB	8.00
Moffett Field AGS	7.60
Birmingham IAP AGS	7.20
Schenectady County APT AGS	7.12
Mc Gee Tyson AGS	6.40
Tucson IAP AGS	6.32
Fresno Air Terminal AGS	5.79
Youngstown-Warrenn Regional APT ARS	5.73
Forbes Field AGS	5.60
Jacksonville IAP AGS	5.60
Bradley IAP AGS	5.44
Hector IAP AGS	4.91

Richmond IAP AGS	4.80
Ellington Field AGS	4.42
Klamath Falls IAP AGS	4.40
Duluth IAP AGS	4.24
Fort Wayne IAP AGS	3.94
Great Falls IAP AGS	3.60
NAS New Orleans ARS	3.60
Pittsburg IAP AGS	3.60
Kessler AFB	3.55
EWVRA Sheppard AGS	3.24
Rickenbacker IAP AGS	3.10
Louisville IAP AGS	2.64
Key Field AGS	2.52
Cheynne Mountian AFS	2.40
Maxwell AFB	2.40
Portland IAP AGS	2.32
Hulman Reg APT AGS	2.28
Dane County Reg - Truax Field AGS	2.19
Willow Grove ARS, NAS Willow Grove Joint Reser	2.04
Niagara Falls IAP ARS	2.02
Altus AFB	2.00
Dannelly Field AGS	1.96
Barnes MPT AGS	1.20
New Castle County Airport AGS	1.20
Sooux Gateway APT AGS	1.20
Salt Lake City IAP AGS	1.04
Bolling AFB	0.91
Gen Mitchell IAP ARS	0.83
F.S. Gabreski APT AGS	0.80
Reno-Tahoe IAP AGS	0.42
Tulsa IAP AGS	0.37
Nashville IAP AGS	0.32
Burlington IAP AGS	0.30
ARPC	0.00
Carswell ARS, NAS Fort Worth Joint Reserve	0.00
Cheyenne APT AGS	0.00
Gen Mitchell IAP AGS	0.00
Jackson IAP AGS	0.00
Lambert-St. Louis AGS	0.00
Lincoln MAP AGS	0.00
Los Angeles AFB	0.00
Luis Munoz IAP AGS	0.00
Mansfield MAP AGS	0.00
Memphis AGS	0.00
Inn/St Paul IAP ARS	0.00
Onizuka AFS	0.00
Phoenix Sky Harbor IAP AGS	0.00
Quonset State APT AGS	0.00
Rosecrans Mem APT AGS	0.00
Springfield-Beckley MPT AGS	0.00

C2ISR MCI	
Base	**Criteria 2 Condition of Infrastructure**
Tinker AFB	99.40
Robins AFB	98.89
Fairchild AFB	96.70
Ellsworth AFB	96.01
Barksdale AFB	95.85
Altus AFB	95.63
Dyess AFB	95.56
Wright-Patterson AFB	95.38
March ARB	95.25
Little Rock AFB	95.18
Beale AFB	95.17
Holloman AFB	94.94
Seymour Johnson AFB	94.93
Eielson AFB	94.88
Mountian Home AFB	94.66
Anderson AFB	94.50
Edwards AFB	93.71
Hill AFB	93.27
Whiteman AFB	93.07
Davis-Monthan AFB	92.46
Charleston AFB	91.68
Elmendorf AFB	91.66
Travis AFB	90.96
Homestead ARS	90.89
Minot AFB	90.27
Grand Forks AFB	90.05
Grissom AFB	90.00
Andrews AFB	89.02
Mac Dill AFB	89.00
Dover AFB	88.84
Mc Connell AFB	85.63
Eglin AFB	84.43
Hickam AFB	84.17
Mc Chrod AFB	82.89
Westover ARB	81.93
Nellis AFB	81.11
Hurlburt Field	80.29
Stewart IAP AGS	79.15
Columbus AFB	76.68
Peterson AFB	76.46
Langley AFB	76.00
Sheppard AFB	75.02
Moody AFB	73.94
Forbes Field AGS	73.31
Mc Guire AFB	72.72
Kirtland AFB	70.96
Rickenbacker IAP AGS	70.92
Randolph AFB	70.16
Pease IAP AGS	67.02

Shaw AFB	66.97
Luke AFB	66.74
Pittsburg IAP AGS	66.22
Pope AFB	65.79
Selfriddge ANGB	64.79
Lackland AFB	64.57
Offut AFB	64.48
Channel Islands AGS	63.65
Inn/St Paul IAP ARS	63.53
Tucson IAP AGS	63.43
Carswell ARS, NAS Fort Worth Joint Reserve	62.58
Scott AFB	62.28
Boise Air Terminal AGS	59.88
Otis AGB	59.43
W.K. Kellog APT AGS	59.43
Mc Gee Tyson AGS	58.62
Moffett Field AGS	56.99
Key Field AGS	56.96
Youngstown-Warrenn Regional APT ARS	56.27
Ellington Field AGS	56.17
Tyndall AFB	55.87
Memphis AGS	55.82
Duluth IAP AGS	54.45
Harrisburg IAP AGS	54.24
Maxwell AFB	53.91
Pittsburg IAP ARS	53.88
Portland IAP AGS	53.84
Charlotte/Douglas IAP AGS	53.82
Kulis AGS	53.55
Bradley IAP AGS	52.53
Bangor IAP AGS	51.39
Birmingham IAP AGS	51.02
Joe Foss Field AGS	50.71
Lincoln MAP AGS	50.53
Salt Lake City IAP AGS	50.36
Phoenix Sky Harbor IAP AGS	50.17
Dobbins ARB	49.70
Laughlin AFB	49.05
Vance AFB	48.60
Reno-Tahoe IAP AGS	48.36
Fort Wayne IAP AGS	48.13
Savannah IAP AGS	47.65
Lambert-St. Louis AGS	47.53
Nashville IAP AGS	47.17
Toledo Express APT AGS	46.77
Mc Entire AGS	46.53
Great Falls IAP AGS	46.48
Gen Mitchell IAP AGS	45.92
Buckley AFB	45.39
Greater Peoria Reg APT AGS	44.80
Luis Munoz IAP AGS	44.68
Louisville IAP AGS	44.66
Tulsa IAP AGS	44.64
Jacksonville IAP AGS	44.58

Will Rogers World APT AGS	43.96
Gen Mitchell IAP ARS	43.59
Cannon AFB	43.36
Atlantic City AGS	42.98
Hector IAP AGS	42.86
NAS New Orleans ARS	42.67
Sooux Gateway APT AGS	42.42
Niagara Falls IAP ARS	41.71
Jackson IAP AGS	41.23
Des Moines IAP AGS	41.00
Dane County Reg - Truax Field AGS	40.97
Hulman Reg APT AGS	40.95
Richmond IAP AGS	40.87
Mansfield MAP AGS	40.01
Burlington IAP AGS	38.46
Rosecrans Mem APT AGS	38.21
Quonset State APT AGS	37.48
Capital APT AGS	37.25
Willow Grove ARS, NAS Willow Grove Joint Reserve	37.04
Fort Smith Reg APT AGS	37.01
Barnes MPT AGS	36.09
Vandenberg AFB	34.30
Indian Springs AFS	28.00
Patrick AFB	27.36
New Castle County Airport AGS	26.35
Klamath Falls IAP AGS	25.83
Cheyenne APT AGS	25.59
Hanscom AFB	23.35
Fresno Air Terminal AGS	21.92
F.S. Gabreski APT AGS	21.49
EWVRA Sheppard AGS	21.47
Dannelly Field AGS	21.45
Hancock Field AGS	21.43
Yeager AGS	21.41
Springfield-Beckley MPT AGS	21.39
Kessler AFB	10.14
Martin State APT AGS	6.84
Arnold AFB	6.75
Schenectady County APT AGS	6.59
ARPC	5.00
Bolling AFB	5.00
Brooks-City Base	5.00
Cheynne Mountian AFS	5.00
F. E. Warren AFB	5.00
Goodfellow AFB	5.00
Los Angeles AFB	5.00
Malmstrom AFB	5.00
Onizuka AFS	5.00
Rome Laboratory	5.00
Schriever AFB	5.00
USAF Academy	5.00

SOF - CSAR MCI	
Base	**Criteria 2 Condition of Infrastructure**
Hurlburt Field	82.65
Pope AFB	82.42
Seymour Johnson AFB	78.88
Eglin AFB	78.25
Langley AFB	71.66
Robins AFB	69.55
Edwards AFB	68.48
Holloman AFB	67.98
Nellis AFB	67.85
March ARB	66.93
Tyndall AFB	65.35
Davis-Monthan AFB	65.19
Luke AFB	64.67
Shaw AFB	63.77
Andrews AFB	63.10
Mac Dill AFB	62.60
Moody AFB	62.09
Kirtland AFB	62.07
Hill AFB	61.71
Dyess AFB	61.61
Mountian Home AFB	60.91
Mc Chrod AFB	60.37
Little Rock AFB	59.92
Homestead ARS	59.76
Dover AFB	59.61
Elmendorf AFB	59.27
Jacksonville IAP AGS	58.77
Eielson AFB	58.42
Charleston AFB	58.39
Whiteman AFB	57.41
Maxwell AFB	55.74
Barksdale AFB	55.36
Mc Connell AFB	55.22
Beale AFB	53.82
Fairchild AFB	53.46
Altus AFB	53.24
Anderson AFB	53.02
Richmond IAP AGS	52.73
Travis AFB	52.73
Cannon AFB	52.41
Mc Entire AGS	51.67
Minot AFB	51.43
Vandenberg AFB	51.09
Ellsworth AFB	50.98
Patrick AFB	50.92
Columbus AFB	50.48
Mc Guire AFB	50.40
Grand Forks AFB	50.22
NAS New Orleans ARS	50.14
Indian Springs AFS	49.78

Key Field AGS	48.25
Hickam AFB	47.69
Lackland AFB	47.55
Kulis AGS	46.72
Ellington Field AGS	46.60
Boise Air Terminal AGS	46.55
Savannah IAP AGS	46.26
Tucson IAP AGS	46.22
Stewart IAP AGS	45.61
Westover ARB	45.41
Sheppard AFB	45.32
Peterson AFB	45.17
Channel Islands AGS	45.12
Scott AFB	45.08
Tinker AFB	44.70
Pittsburg IAP AGS	44.58
Wright-Patterson AFB	43.91
Forbes Field AGS	43.31
Selfriddge ANGB	42.66
Willow Grove ARS, NAS Willow Grove Joint Reserve	42.45
Randolph AFB	42.26
Birmingham IAP AGS	42.04
Buckley AFB	42.04
Charlotte/Douglas IAP AGS	42.01
Otis AGB	41.56
Dobbins ARB	41.46
Grissom AFB	41.30
Harrisburg IAP AGS	41.25
Rickenbacker IAP AGS	40.88
Dannelly Field AGS	40.54
Carswell ARS, NAS Fort Worth Joint Reserve	40.37
Rosecrans Mem APT AGS	40.34
Bradley IAP AGS	40.29
Atlantic City AGS	39.42
Pease IAP AGS	39.27
Phoenix Sky Harbor IAP AGS	39.20
Vance AFB	39.07
Salt Lake City IAP AGS	38.75
Inn/St Paul IAP ARS	38.72
Barnes MPT AGS	38.57
Tulsa IAP AGS	38.53
Moffett Field AGS	38.31
Fresno Air Terminal AGS	38.22
W.K. Kellog APT AGS	38.21
Pittsburg IAP ARS	37.86
Laughlin AFB	37.72
Mc Gee Tyson AGS	37.71
Will Rogers World APT AGS	37.16
Portland IAP AGS	37.10
Offut AFB	36.98
Niagara Falls IAP ARS	36.92
Klamath Falls IAP AGS	36.69
Luis Munoz IAP AGS	36.29
Fort Wayne IAP AGS	35.34

Bangor IAP AGS	35.03
Fort Smith Reg APT AGS	34.53
Martin State APT AGS	34.28
Reno-Tahoe IAP AGS	34.25
Kessler AFB	33.81
Jackson IAP AGS	33.67
Burlington IAP AGS	33.50
Lambert-St. Louis AGS	33.45
Joe Foss Field AGS	33.35
Memphis AGS	32.53
Nashville IAP AGS	32.22
Dane County Reg - Truax Field AGS	31.67
Gen Mitchell IAP AGS	31.65
Lincoln MAP AGS	31.38
Toledo Express APT AGS	31.23
Louisville IAP AGS	31.22
Capital APT AGS	30.79
Youngstown-Warrenn Regional APT ARS	30.53
Quonset State APT AGS	29.40
Hulman Reg APT AGS	29.38
Des Moines IAP AGS	28.63
Gen Mitchell IAP ARS	28.61
Greater Peoria Reg APT AGS	28.44
Great Falls IAP AGS	27.61
Sooux Gateway APT AGS	27.03
Hanscom AFB	26.86
New Castle County Airport AGS	26.76
F.S. Gabreski APT AGS	26.75
Hancock Field AGS	26.66
Duluth IAP AGS	25.17
Springfield-Beckley MPT AGS	25.02
EWVRA Sheppard AGS	24.41
Cheyenne APT AGS	22.58
Hector IAP AGS	21.98
Mansfield MAP AGS	21.81
Schenectady County APT AGS	19.77
Yeager AGS	18.54
Arnold AFB	18.48
ARPC	3.60
Bolling AFB	3.60
Brooks-City Base	3.60
Cheynne Mountian AFS	3.60
F. E. Warren AFB	3.60
Goodfellow AFB	3.60
Los Angeles AFB	3.60
Malmstrom AFB	3.60
Onizuka AFS	3.60
Rome Laboratory	3.60
Schriever AFB	3.60
USAF Academy	3.60

Bomber MCI	
Base	**Criteria 2 Condition of Infrastructure**
Seymour Johnson AFB	75.14
Edwards AFB	71.06
Barksdale AFB	70.82
Nellis AFB	70.39
Eglin AFB	69.82
Robins AFB	67.36
Whiteman AFB	66.54
Hill AFB	66.30
Ellsworth AFB	63.44
Beale AFB	63.42
Mountian Home AFB	62.13
Mc Connell AFB	61.83
March ARB	61.12
Davis-Monthan AFB	60.73
Pope AFB	60.66
Little Rock AFB	59.48
Dyess AFB	58.78
Homestead ARS	58.47
Travis AFB	58.00
Fairchild AFB	56.94
Minot AFB	54.97
Mc Guire AFB	54.18
Holloman AFB	54.10
Shaw AFB	53.19
Anderson AFB	52.58
Kirtland AFB	51.65
Charleston AFB	50.88
Andrews AFB	50.65
Mac Dill AFB	50.18
Elmendorf AFB	50.14
Dover AFB	49.91
Hurlburt Field	49.80
Tyndall AFB	49.79
Tinker AFB	49.77
Luke AFB	49.63
Hickam AFB	48.33
Moody AFB	48.06
Indian Springs AFS	47.03
Eielson AFB	46.54
Columbus AFB	46.44
Vandenberg AFB	44.64
Mc Chrod AFB	44.20
Langley AFB	42.84
Mc Entire AGS	41.86
Altus AFB	41.75
Sheppard AFB	40.52
Lackland AFB	40.27
Grissom AFB	39.67
Forbes Field AGS	39.62

Offut AFB	39.61
Harrisburg IAP AGS	39.41
Jacksonville IAP AGS	39.34
Pittsburg IAP AGS	39.20
Grand Forks AFB	39.12
Dobbins ARB	39.07
Rickenbacker IAP AGS	37.50
Channel Islands AGS	36.99
Westover ARB	36.88
Cannon AFB	36.06
Martin State APT AGS	35.65
Patrick AFB	35.27
Richmond IAP AGS	34.31
Selfriddge ANGB	34.23
Willow Grove ARS, NAS Willow Grove Joint Reserve	34.08
Savannah IAP AGS	33.66
Carswell ARS, NAS Fort Worth Joint Reserve	31.59
Pittsburg IAP ARS	31.58
Tulsa IAP AGS	31.42
Charlotte/Douglas IAP AGS	31.32
Dannelly Field AGS	30.85
Maxwell AFB	30.85
Lambert-St. Louis AGS	30.76
Boise Air Terminal AGS	30.03
Fresno Air Terminal AGS	29.95
EWVRA Sheppard AGS	29.44
Atlantic City AGS	29.29
Tucson IAP AGS	29.26
Laughlin AFB	29.09
Bangor IAP AGS	28.42
Reno-Tahoe IAP AGS	28.06
NAS New Orleans ARS	27.56
Key Field AGS	27.07
Moffett Field AGS	26.93
Lincoln MAP AGS	26.69
Phoenix Sky Harbor IAP AGS	26.51
Birmingham IAP AGS	26.47
Nashville IAP AGS	25.95
Klamath Falls IAP AGS	25.85
Otis AGB	25.82
New Castle County Airport AGS	25.67
Scott AFB	24.91
Barnes MPT AGS	24.81
Luis Munoz IAP AGS	24.60
Hancock Field AGS	24.52
Salt Lake City IAP AGS	24.49
Mc Gee Tyson AGS	24.42
Jackson IAP AGS	24.34
Fort Smith Reg APT AGS	24.25
Capital APT AGS	24.12
Randolph AFB	23.55
Bradley IAP AGS	23.20
Hulman Reg APT AGS	23.13
Arnold AFB	22.91

Ellington Field AGS	22.90
Rosecrans Mem APT AGS	22.68
Sooux Gateway APT AGS	22.65
Dane County Reg - Truax Field AGS	22.59
Kessler AFB	22.17
Burlington IAP AGS	21.97
Inn/St Paul IAP ARS	21.91
Springfield-Beckley MPT AGS	21.80
W.K. Kellog APT AGS	21.72
Yeager AGS	21.58
Will Rogers World APT AGS	21.34
Memphis AGS	21.31
Wright-Patterson AFB	21.12
Stewart IAP AGS	21.05
Portland IAP AGS	20.87
Toledo Express APT AGS	20.86
Vance AFB	20.38
Gen Mitchell IAP ARS	20.23
F.S. Gabreski APT AGS	20.01
Pease IAP AGS	19.58
Kulis AGS	19.38
Hector IAP AGS	19.22
Greater Peoria Reg APT AGS	19.13
Niagara Falls IAP ARS	19.09
Des Moines IAP AGS	18.70
Joe Foss Field AGS	18.56
Great Falls IAP AGS	17.92
Youngstown-Warrenn Regional APT ARS	17.68
Gen Mitchell IAP AGS	17.44
Hanscom AFB	17.34
Peterson AFB	17.26
Fort Wayne IAP AGS	17.21
Quonset State APT AGS	16.98
Duluth IAP AGS	16.76
Schenectady County APT AGS	16.72
Buckley AFB	16.11
Mansfield MAP AGS	14.02
Louisville IAP AGS	13.33
Cheyenne APT AGS	11.54
ARPC	4.90
Bolling AFB	4.90
Brooks-City Base	4.90
Cheynne Mountian AFS	4.90
F. E. Warren AFB	4.90
Goodfellow AFB	4.90
Los Angeles AFB	4.90
Malmstrom AFB	4.90
Onizuka AFS	4.90
Rome Laboratory	4.90
Schriever AFB	4.90
USAF Academy	4.90

Fighter MCI	
Base	**Criteria 2 Condition of Infrastructure**
Seymour Johnson AFB	89.63
Tyndall AFB	88.78
Hurlburt Field	84.64
Shaw AFB	84.47
Eglin AFB	83.97
Moody AFB	82.55
Nellis AFB	82.32
Holloman AFB	81.84
Eielson AFB	80.90
Langley AFB	80.51
Davis-Monthan AFB	79.71
Luke AFB	79.48
Dover AFB	78.78
Mac Dill AFB	78.78
Elmendorf AFB	78.71
Kirtland AFB	78.12
Mc Chrod AFB	77.97
Pope AFB	77.74
Edwards AFB	76.49
Hill AFB	76.08
Dyess AFB	76.07
Mountian Home AFB	75.17
Cannon AFB	74.41
Fairchild AFB	74.35
Travis AFB	74.31
Ellsworth AFB	74.01
Whiteman AFB	72.69
Grand Forks AFB	72.05
Minot AFB	71.88
Barksdale AFB	71.35
Little Rock AFB	71.32
March ARB	71.06
Homestead ARS	70.75
Mc Guire AFB	70.22
Mc Connell AFB	68.32
Hickam AFB	68.03
Andrews AFB	67.83
Beale AFB	67.63
Anderson AFB	67.15
Charleston AFB	66.51
Klamath Falls IAP AGS	66.48
Robins AFB	66.23
Maxwell AFB	64.46
Selfriddge ANGB	63.74
Lackland AFB	63.36
Willow Grove ARS, NAS Willow Grove Joint Reserve	63.23
Indian Springs AFS	62.87
Tinker AFB	62.76
Altus AFB	62.69
Sheppard AFB	62.12

Wright-Patterson AFB	62.01
Patrick AFB	61.64
Vandenberg AFB	59.43
Stewart IAP AGS	57.05
Boise Air Terminal AGS	56.24
Portland IAP AGS	56.19
Otis AGB	56.00
Buckley AFB	55.99
Savannah IAP AGS	55.63
Westover ARB	55.37
Mc Entire AGS	55.01
Columbus AFB	54.88
Jacksonville IAP AGS	54.71
Carswell ARS, NAS Fort Worth Joint Reserve	52.93
Channel Islands AGS	52.73
Scott AFB	52.26
Richmond IAP AGS	52.13
Tucson IAP AGS	51.50
Vance AFB	51.09
Peterson AFB	50.41
Moffett Field AGS	50.38
Grissom AFB	50.37
Offut AFB	50.37
Atlantic City AGS	50.22
Ellington Field AGS	50.14
Rickenbacker IAP AGS	50.05
NAS New Orleans ARS	49.96
Randolph AFB	49.93
Forbes Field AGS	49.30
Kulis AGS	48.96
Martin State APT AGS	48.71
Dannelly Field AGS	48.57
Quonset State APT AGS	48.34
F.S. Gabreski APT AGS	48.26
Barnes MPT AGS	48.16
Bradley IAP AGS	47.75
Kessler AFB	47.57
Reno-Tahoe IAP AGS	47.23
Fresno Air Terminal AGS	47.02
Niagara Falls IAP ARS	47.01
Sooux Gateway APT AGS	46.88
W.K. Kellog APT AGS	46.76
Joe Foss Field AGS	46.09
Dane County Reg - Truax Field AGS	45.99
Hancock Field AGS	45.60
Phoenix Sky Harbor IAP AGS	45.30
Pittsburg IAP AGS	45.14
Pease IAP AGS	45.08
Jackson IAP AGS	44.29
Great Falls IAP AGS	44.04
Memphis AGS	43.82
Dobbins ARB	43.60
Lincoln MAP AGS	43.39
Harrisburg IAP AGS	43.04

Burlington IAP AGS	42.88
Hector IAP AGS	42.85
Laughlin AFB	42.54
Rosecrans Mem APT AGS	42.16
Charlotte/Douglas IAP AGS	42.07
Salt Lake City IAP AGS	42.03
Gen Mitchell IAP ARS	41.52
Tulsa IAP AGS	41.33
Inn/St Paul IAP ARS	41.24
Cheyenne APT AGS	41.00
Hulman Reg APT AGS	40.99
Hanscom AFB	40.84
Will Rogers World APT AGS	40.65
Key Field AGS	40.54
Duluth IAP AGS	40.48
Nashville IAP AGS	39.78
Capital APT AGS	39.20
EWVRA Sheppard AGS	39.16
Luis Munoz IAP AGS	39.02
Birmingham IAP AGS	38.69
Gen Mitchell IAP AGS	38.62
Toledo Express APT AGS	38.44
Mc Gee Tyson AGS	38.30
Lambert-St. Louis AGS	38.26
Fort Wayne IAP AGS	37.92
Louisville IAP AGS	37.78
Bangor IAP AGS	37.72
Pittsburg IAP ARS	37.30
New Castle County Airport AGS	36.90
Fort Smith Reg APT AGS	36.31
Des Moines IAP AGS	35.92
Youngstown-Warrenn Regional APT ARS	35.83
Springfield-Beckley MPT AGS	35.31
Greater Peoria Reg APT AGS	33.86
Schenectady County APT AGS	33.66
Arnold AFB	33.00
Mansfield MAP AGS	31.69
Yeager AGS	27.78
ARPC	5.51
Bolling AFB	5.51
Brooks-City Base	5.51
Cheynne Mountian AFS	5.51
F. E. Warren AFB	5.51
Goodfellow AFB	5.51
Los Angeles AFB	5.51
Malmstrom AFB	5.51
Onizuka AFS	5.51
Rome Laboratory	5.51
Schriever AFB	5.51
USAF Academy	5.51

TANKER MCI	
Base	**Criteria 2 Condition of Infrastructure**
Barksdale AFB	94.69
Ellsworth AFB	91.15
Robins AFB	89.98
Tinker AFB	88.58
Dyess AFB	86.18
Whiteman AFB	86.09
Altus AFB	85.88
March ARB	85.82
Elmendorf AFB	85.70
Little Rock AFB	85.52
Eielson AFB	85.07
Davis-Monthan AFB	84.66
Seymour Johnson AFB	84.52
Eglin AFB	84.29
Mountian Home AFB	84.00
Anderson AFB	83.17
Edwards AFB	82.92
Hickam AFB	82.88
Fairchild AFB	82.72
Andrews AFB	81.68
Mc Connell AFB	81.22
Charleston AFB	81.06
Beale AFB	80.76
Hill AFB	80.45
Holloman AFB	80.08
Travis AFB	79.81
Mc Chrod AFB	77.48
Mac Dill AFB	77.47
Wright-Patterson AFB	76.85
Homestead ARS	75.28
Dover AFB	75.22
Grand Forks AFB	71.92
Grissom AFB	70.93
Westover ARB	70.56
Mc Guire AFB	68.82
Pope AFB	68.47
Columbus AFB	67.62
Minot AFB	66.86
Randolph AFB	66.76
Nellis AFB	66.40
Rickenbacker IAP AGS	65.91
Langley AFB	65.58
Peterson AFB	64.75
Kirtland AFB	62.56
Pease IAP AGS	62.12
Sheppard AFB	61.59
Scott AFB	61.26
Hurlburt Field	61.23
Offut AFB	59.64

Selfriddge ANGB	59.15
Inn/St Paul IAP ARS	58.78
Forbes Field AGS	57.88
Luke AFB	57.31
Boise Air Terminal AGS	56.46
Stewart IAP AGS	56.08
Lincoln MAP AGS	51.82
Pittsburg IAP AGS	51.76
Salt Lake City IAP AGS	51.62
Harrisburg IAP AGS	51.56
Lackland AFB	51.42
Pittsburg IAP ARS	51.25
Phoenix Sky Harbor IAP AGS	50.26
Memphis AGS	49.58
Birmingham IAP AGS	48.57
Tyndall AFB	47.49
Dobbins ARB	47.28
Gen Mitchell IAP AGS	47.02
Kulis AGS	46.74
Carswell ARS, NAS Fort Worth Joint Reserve	46.62
Mc Gee Tyson AGS	45.40
Tucson IAP AGS	45.15
Lambert-St. Louis AGS	44.73
Shaw AFB	43.70
Laughlin AFB	43.69
Maxwell AFB	43.23
Fort Wayne IAP AGS	43.01
Luis Munoz IAP AGS	43.01
Louisville IAP AGS	43.00
Tulsa IAP AGS	42.97
Jacksonville IAP AGS	42.90
Bangor IAP AGS	42.64
Will Rogers World APT AGS	42.56
Moody AFB	41.86
Channel Islands AGS	41.23
Reno-Tahoe IAP AGS	40.95
Portland IAP AGS	40.93
Joe Foss Field AGS	40.66
Dane County Reg - Truax Field AGS	40.65
Toledo Express APT AGS	39.90
Nashville IAP AGS	39.82
Great Falls IAP AGS	39.74
Sooux Gateway APT AGS	39.74
Jackson IAP AGS	39.25
Otis AGB	39.11
Burlington IAP AGS	39.08
Greater Peoria Reg APT AGS	38.78
NAS New Orleans ARS	38.25
W.K. Kellog APT AGS	38.12
Charlotte/Douglas IAP AGS	38.04
Key Field AGS	38.01
Gen Mitchell IAP ARS	37.98
Hector IAP AGS	37.43
Bradley IAP AGS	37.40

Vance AFB	37.28
Savannah IAP AGS	36.99
Atlantic City AGS	36.93
Moffett Field AGS	36.78
Youngstown-Warrenn Regional APT ARS	36.35
Mc Entire AGS	36.33
Des Moines IAP AGS	36.32
Hulman Reg APT AGS	36.24
Ellington Field AGS	36.23
Richmond IAP AGS	36.18
Mansfield MAP AGS	35.32
Rosecrans Mem APT AGS	34.56
Quonset State APT AGS	34.19
Capital APT AGS	33.93
Fort Smith Reg APT AGS	33.69
Niagara Falls IAP ARS	33.64
Cannon AFB	33.60
Willow Grove ARS, NAS Willow Grove Joint Reserve	33.48
Buckley AFB	32.62
New Castle County Airport AGS	32.16
Barnes MPT AGS	31.90
Vandenberg AFB	30.06
Patrick AFB	28.31
EWVRA Sheppard AGS	27.36
Klamath Falls IAP AGS	25.73
Indian Springs AFS	25.27
Duluth IAP AGS	24.58
Hanscom AFB	23.36
Fresno Air Terminal AGS	23.31
F.S. Gabreski APT AGS	23.18
Dannelly Field AGS	23.12
Hancock Field AGS	23.11
Springfield-Beckley MPT AGS	23.06
Kessler AFB	22.60
Cheyenne APT AGS	22.36
Schenectady County APT AGS	18.36
Yeager AGS	15.79
Martin State APT AGS	7.10
Arnold AFB	7.00
ARPC	5.00
Bolling AFB	5.00
Brooks-City Base	5.00
Cheynne Mountian AFS	5.00
F. E. Warren AFB	5.00
Goodfellow AFB	5.00
Los Angeles AFB	5.00
Malmstrom AFB	5.00
Onizuka AFS	5.00
Rome Laboratory	5.00
Schriever AFB	5.00
USAF Academy	5.00

Airlift MCI	
Base	**Criteria 2 Condition of Infrastructure**
Barksdale AFB	87.48
Seymour Johnson AFB	83.82
Charleston AFB	83.15
Eglin AFB	81.55
Tinker AFB	80.62
Dyess AFB	76.82
Edwards AFB	75.19
Altus AFB	73.95
Pope AFB	73.40
Little Rock AFB	73.05
Eielson AFB	73.03
Travis AFB	72.89
Fairchild AFB	72.85
Ellsworth AFB	72.78
Nellis AFB	72.31
Robins AFB	71.87
Mc Chrod AFB	71.78
March ARB	71.33
Whiteman AFB	71.25
Holloman AFB	70.94
Beale AFB	70.78
Andrews AFB	70.40
Anderson AFB	70.34
Elmendorf AFB	70.05
Mountian Home AFB	68.64
Grissom AFB	68.46
Hurlburt Field	67.11
Hickam AFB	66.93
Dover AFB	66.73
Hill AFB	66.57
Mac Dill AFB	66.41
Davis-Monthan AFB	66.00
Mc Connell AFB	65.92
Minot AFB	65.42
Grand Forks AFB	62.52
Mc Guire AFB	62.51
Forbes Field AGS	61.74
Rickenbacker IAP AGS	61.23
Peterson AFB	59.78
Shaw AFB	59.50
Homestead ARS	59.36
Wright-Patterson AFB	58.95
Westover ARB	58.47
Columbus AFB	58.08
Kirtland AFB	58.01
Luke AFB	55.68
Maxwell AFB	55.31
Pittsburg IAP AGS	55.13
Langley AFB	54.97
Ellington Field AGS	53.91

Inn/St Paul IAP ARS	52.63
Selfriddge ANGB	52.56
Pease IAP AGS	52.48
Buckley AFB	52.45
Sheppard AFB	52.33
Scott AFB	52.04
Mc Gee Tyson AGS	51.87
Randolph AFB	51.76
Tyndall AFB	50.88
Carswell ARS, NAS Fort Worth Joint Reserve	50.30
Key Field AGS	50.02
Mc Entire AGS	49.85
Stewart IAP AGS	49.72
Charlotte/Douglas IAP AGS	49.46
Offut AFB	49.10
Birmingham IAP AGS	48.35
Boise Air Terminal AGS	46.65
Memphis AGS	45.72
Phoenix Sky Harbor IAP AGS	45.21
Dobbins ARB	44.38
Lackland AFB	44.29
Harrisburg IAP AGS	44.21
Vandenberg AFB	43.97
Cannon AFB	43.94
Gen Mitchell IAP AGS	43.76
Salt Lake City IAP AGS	43.47
Niagara Falls IAP ARS	43.28
Kulis AGS	42.67
Pittsburg IAP ARS	42.44
Lincoln MAP AGS	42.39
Bangor IAP AGS	42.24
Channel Islands AGS	42.05
Moody AFB	41.64
Louisville IAP AGS	41.32
Joe Foss Field AGS	40.62
NAS New Orleans ARS	39.81
Fort Wayne IAP AGS	39.65
Laughlin AFB	39.38
Jackson IAP AGS	39.33
Reno-Tahoe IAP AGS	39.29
Tucson IAP AGS	39.17
Savannah IAP AGS	38.84
Tulsa IAP AGS	38.74
Jacksonville IAP AGS	38.47
Luis Munoz IAP AGS	38.47
Youngstown-Warrenn Regional APT ARS	38.26
W.K. Kellog APT AGS	37.74
Dane County Reg - Truax Field AGS	37.71
Portland IAP AGS	37.58
Will Rogers World APT AGS	37.47
Lambert-St. Louis AGS	37.40
Sooux Gateway APT AGS	37.14
Otis AGB	36.90
Hulman Reg APT AGS	36.72

Toledo Express APT AGS	36.46
Bradley IAP AGS	36.03
Richmond IAP AGS	35.69
Burlington IAP AGS	34.88
Mansfield MAP AGS	33.50
Klamath Falls IAP AGS	32.91
Patrick AFB	32.91
Vance AFB	32.89
Rosecrans Mem APT AGS	32.73
Great Falls IAP AGS	32.68
Greater Peoria Reg APT AGS	32.28
Willow Grove ARS, NAS Willow Grove Joint Reserve	32.22
Capital APT AGS	32.03
Fort Smith Reg APT AGS	31.91
Dannelly Field AGS	31.75
Moffett Field AGS	31.66
Atlantic City AGS	31.54
Barnes MPT AGS	31.39
Indian Springs AFS	31.08
Des Moines IAP AGS	30.80
Kessler AFB	29.62
Quonset State APT AGS	29.32
New Castle County Airport AGS	28.33
Nashville IAP AGS	27.61
Schenectady County APT AGS	25.33
Gen Mitchell IAP ARS	24.50
Cheyenne APT AGS	24.30
Springfield-Beckley MPT AGS	23.23
Fresno Air Terminal AGS	21.98
Duluth IAP AGS	21.71
Hector IAP AGS	21.49
Hancock Field AGS	21.04
F.S. Gabreski APT AGS	20.77
Hanscom AFB	20.17
Yeager AGS	19.79
EWVRA Sheppard AGS	17.83
Arnold AFB	13.90
Martin State APT AGS	10.15
ARPC	4.00
Bolling AFB	4.00
Brooks-City Base	4.00
Cheynne Mountian AFS	4.00
F. E. Warren AFB	4.00
Goodfellow AFB	4.00
Los Angeles AFB	4.00
Malmstrom AFB	4.00
Onizuka AFS	4.00
Rome Laboratory	4.00
Schriever AFB	4.00
USAF Academy	4.00

1.4 Airlift

1.4.1 Effective Weights (Airlift MCI)

Bold rows indicate OSD military value selection criteria and associated effective weights. Shaded rows indicate Air Force military value attributes and associated effective weights. Rows with no enhancement indicate individual questions with the leading numeric indicating the question number. Question effective weights sum to the attribute above them and attribute effective weights sum to the criterion above them. The criteria **(bold)** sum to 100.

Name	Eff. %
1 - Current / Future Mission	**46.00**
1 - Operating Environment	9.20
1242 - ATC Restrictions to Operations	5.98
1271 - Prevailing Installation Weather Conditions	3.22
2 - Geo-locational Factors	36.80
1246 - Proximity to Low Level Routes Supporting Mission	13.98
1248 - Proximity to DZ/LZ	14.72
1273 - Aerial Port Proximity	8.10
2 - Condition of Infrastructure	**41.50**
3 - Key Mission Infrastructure	33.20
1 - Fuel Hydrant Systems Support Mission Growth	4.32
8 - Ramp Area and Serviceability	5.98
9 - Runway Dimension and Serviceability	5.98
19 - Hangar Capability - Large Aircraft	3.32
1207 - Level of Mission Encroachment	1.66
1235 - Installation Pavements Quality	11.95
4 - Operating Areas	8.30
1249 - Airspace Attributes of DZ/LZ	8.30
3 - Contingency, Mobilization, Future Forces	**10.00**
5 - Mobility/Surge	4.40
1214 - Fuel Dispensing Rate to Support Mobility and Surge	2.20
1241 - Ability to Support Large-Scale Mobility Deployment	2.20
6 - Growth Potential	5.60
213 - Attainment / Emission Budget Growth Allowance	1.68
1205.1 - Buildable Acres for Industrial Operations Growth	1.96
1205.2 - Buildable Acres for Air Operations Growth	1.96
4 - Cost of Ops / Manpower	**2.50**
7 - Cost Factors	2.50
1250 - Area Cost Factor	1.25
1269 - Utilities cost rating (U3C)	.13
1402 - BAH Rate	.88
1403 - GS Locality Pay Rate	.25

Airlift MCI					
Base	**Overall MCI Score**	**Crt 1 Current and Future Mission**	**Crt 2 Condition of Infra-structure**	**Crt 3 Contingency ,Mobilization ,Future Forces**	**Crt 4 Cost of Ops / Manpower**
Springfield-Beckley MPT AGS	33.54	41.59	23.23	29.78	71.74
Stewart IAP AGS	45.53	45.03	49.72	40.99	3.65
Tinker AFB	68.62	55.20	80.62	76.23	85.80
Toledo Express APT AGS	41.45	44.03	36.46	42.51	72.76
Travis AFB	53.86	41.24	72.89	40.31	24.22
Tucson IAP AGS	41.92	45.19	39.16	30.57	72.70
Tulsa IAP AGS	43.20	49.40	38.74	23.72	81.03
Tyndall AFB	61.75	68.65	50.88	67.84	90.98
United States Air Force Academy	4.59	0.00	4.00	13.92	61.68
Vance AFB	43.45	55.12	32.89	22.51	87.75
Vandenberg AFB	44.16	40.15	43.97	66.26	32.48
W. K. Kellogg APT AGS	39.22	38.19	37.74	44.28	62.57
Westover ARB	52.00	42.80	58.47	68.13	49.23
Whiteman AFB	57.82	39.47	71.25	82.33	74.42
Will Rogers World APT AGS	47.79	56.31	37.47	42.22	84.80
Willow Grove ARS, NAS Willow Grove Joint Reserve	35.85	43.92	32.22	12.92	39.74
Wright-Patterson AFB	54.27	44.62	58.95	74.34	74.09
Yeager APT AGS	31.90	40.64	19.79	29.70	81.12
Youngstown-Warren Regional APT ARS	40.09	40.95	38.26	35.23	73.97

CRITERION 2
Condition of Infrastructure/ Key Mission Infrastructure

SUMMARY

Criteria 2 total qualified points - 155.3

Total Points Possible- 700

155.3 / 700 x 100 = **22.19 points**

Future Criteria 2 total qualified points (LZ) = 262.5

262.5/ 700 x 100 = **37.5 points**

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Key Mission Infrastructure
Formula #	1
Label	Fuel Hydrant Systems Support Mission Growth
Effective %	4.32
Question	Check the current fuel hydrant system capability. If installation has no runway or no active runway, or no serviceable, suitable runway then score 0 pts. See section 1.9 "Shared" for details. 20% of the score is based upon the best type of fuel hydrant available. 80% of the score is based upon the number of qualified refueling points/outlets. **Type of Fuel Hydrant:** Check each Fuel System. See OSD question 1 for this data. Ignore those that are not aircraft fueling hydrants. See OSD Question 1, column 2 for this data, where the value is not an 'A'. If any one of them is a Type III, get 100 points. See OSD Question 1, column 3 for this data. Otherwise, If any one of them is a Type I or II, get 75 points. Otherwise, If any one of them is a Type IV or V, get 25 points. Otherwise, get 0 points. **Number of Qualified Refueling Points/Outlets:** Sum the number of qualified refueling points/outlets. See OSD Question 1, column 6 for this data, but ignore those that are not aircraft fueling hydrants. See OSD Question 1, column 2 for this data, where the value is not an 'A'. Also ignore those that are not Type I, II, III, IV or V. See OSD Question 1, column 3 for this data. If the sum of qualified refueling points/outlets >= 24, get 100 points. Otherwise, if the sum of qualified refueling points/outlets = 0, get 0 points. Otherwise, pro-rate the sum between 0 and 24 on a 0 to 100 scale. **Example:** There are three refueling facilities. One is a Type I, one a Type IV, and one is a Truck Fill Stand. There are no Type III facilities, so we check for Type I or II. Since there

	is a Type I. the score for the type of fuel hydrant is 75. There are 3 Type 1 refueling points/outlets. 9 Type IV refueling points/outlets. and 22 Truck Fill Stand refueling points/outlets. The Type 1 and Type IV refueling points/outlets sum to 12. the 22 Truck Fill Stand refueling points/outlets do not count. 12 is halfway between 0 and 24. for a number of qualified refueling points score of 50. (20% of 75) plus (80% of 50) = an overall score of 55.
Source	ACES-RP; existing record drawings or physically verification;

CRITERION 2
Condition of Infrastructure

FUEL HYDRANT SYSTEMS SUPPORT MISSION GROWTH

No fuel hydrant system exists. The current infrastructure is a bulk storage truck fill stand. Since truck fill stands do not count, the number of qualified refueling points. SCORE is 0.

Source: ACES-RP, record drawing, and physical verification.

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Key Mission Infrastructure
Formula #	8
Label	Ramp Area and Serviceability
Effective %	5.98
Question	If installation has no runway or no active runway, or no serviceable, suitable runway then score 0 pts. See section 1.9 "Shared" for details. Total the square yardage of every serviceable ramp at the installation. See OSD Question 8, column 9 to determine serviceability. (N/A means not serviceable.) See OSD Question 8, column 2 for the square yardage of that ramp. If the total square yards of serviceable ramp is >= 1,040,000, get 100 points. Otherwise, if the total square yards of serviceable ramp is >= 416,000, get 75 points. Otherwise, if the total square yards of serviceable ramp is >= 137,000, get 25 points. Otherwise, get 0 points. **Example:** The installation has three ramps, Alpha, Bravo and Charlie. Alpha and Bravo are both fully serviceable and active; Charlie is not serviceable because of major sinkholes that have developed. Alpha has 50,000 square yards, Bravo has 20,000 square yards, and Charlie has 200,000 square yards, for a total of 70,000 serviceable square yards of ramps. This number is between 0 and 137,000, so it falls into the 0 point range.
Source	FLIP; AFCESA Pavement Evaluation/Condition Report/Survey; Existing Record Drawings or Physical Verification; Base Real Property Records

CRITERION 2
Condition of Infrastructure

RAMP AREA AND SERVICEABILITY

Total Square Yardage (SY) of serviceable ramp at this installation is 84,505 SY. This number is between 0 and 137,000, so it falls into the 0 point range. Therefore the qualified point score is 0.

FUTURE EXPANSION IAW the 130th AW Master plan (NOV 04) and closure of Runway 33/15 and Lease Agreement with Airport.

Future total SY of serviceable ramp is:

Phase II	44,970 SY	(see drawings)
Phase III	69,842 SY	(see drawings)
Phase IV	14,677 SY	(see drawings)
TOTAL	129,689 SY	
	+ 84,505 SY	(existing)
TOTAL	213,994 SY = 214,000 SY	

This number is between 137,000 and 416,000 therefore the qualified point score is 25.

SOURCE: ACES-RP, ANG CETC Airfield Pavement Condition Report, and Physical verification.

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Key Mission Infrastructure
Formula #	9
Label	Runway Dimension and Serviceability
Effective %	5.98
Question	Check the dimension of all serviceable runways that support the installation. Calculate a score for each runway at the installation as follows: If the runway is not serviceable, get 0 points. See OSD Question 9, column 15 for this data. (N/A means not serviceable.) Otherwise, if the runway is < 150' wide, get 0 points. See OSD Question 9, column 8 for this data. (N/A means 0.) Otherwise, if the runway is < 7,000' long, get 0 points. See OSD Question 9, column 7 for this data. (N/A means 0.) Otherwise, if the runway is >= 11,000' long, get 100 points. Otherwise, pro-rate the runway length from 7,000' to 11,000' on a 50 to 100 scale to get the points. The overall score is the highest score received by any one runway. **Example:** An installation has two runways, Alpha and Bravo. Alpha is 12,000' long, 160' wide, and full of huge holes because it has partially been demolished, so it is not serviceable. Bravo is 9,000' long and 152' wide, plus it is fully serviceable. Runway Alpha scores 0 points because it isn't serviceable. Runway Bravo meets all the specified criteria so it gets some points. 9,000' is halfway between 7,000' and 11,000', so Runway Bravo gets 75 points. Runway Bravo has the highest score for any runway at the installation, so its score of 75 is used for the installation's score.
Source	FLIP; AFCESA Pavement Evaluation/Condition Report/Survey; Existing Record Drawings or Physical Verification; Base Real Property Records

CRITERION 2
Condition of Infrastructure

RUNWAY DIMENSION AND SERVICEABILITY

This installation has two runways:

5/23 => 150' wide x 6,302' long
33/15 => 150' wide x 4,750' long

Both runways are serviceable, but do not meet all the specified criteria therefore the qualified point score is 0.

FUTURE EXPANSION adds 1000' to the overrun length; however the overall length remains the same. No future qualified points.

SOURCE: WWW.afd.scott.af.mil (attched)

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Key Mission Infrastructure
Formula #	19
Label	Hangar Capability - Large Aircraft
Effective %	3.32
Question	Check the facilities to hangar large aircraft. If installation has no runway or no active runway, or no serviceable, suitable runway then score 0 pts. See section 1.9 "Shared" for details. Total the gross square feet for hangars for each installation. See OSD Question 19, column 5 for this data, but ignore all hangars whose Service Facility Code is not a 1, 2, or 3. See OSD Question 19, column 4 for this data. Also ignore all hangars whose door opening size < 131'. See OSD Question 19, column 6 for this data. Also ignore all hangars whose gross square feet < 6000. See OSD Question 19, column 5 for this data. If the sum above is < 6000 square feet, get 0 points. Otherwise, if the sum above is = the highest score received by any installation, get 100 points. Otherwise, pro-rate the sum above between 6000 and the highest score received by any installation on a 25 to 100 point scale. **Example:** There are three hangars on the facility that have a Service Facility Code of 1, 2, or 3, and which have door openings >= 131' in width, and which are at least 6,000 gross square feet in size. Those three hangars have a gross square footage of 6,000, 14,000 and 10,000 respectively, for a total of 30,000 gross square feet at that installation. The highest number of gross square feet at any installation using the above formula is 50,000. 30,000 is 65.91% of the way between 6,000 and 50,000, so the score is 65.91.
Source	ACES-RP, Record Drawings, Base Real Property Records; pre-populated from ACES-RP: "Service Facility Condition Code" rated 1 through 6 in accordance with OSD BRAC library

CRITIERION 2
Condition of Infrastructure

HANGAR CAPABILITY- LARGE AIRCRAFT

The total gross square feet (SF) for hangars @ this installation:

BLDG 107- 26,437 SF, facility service code 2, Door opening size 137'

BLDG 121- 20,397 SF. Facility service code 2, Door opening size 150'

Both hangars meet the specified criteria with total gross SF of 46,834. 46,834 is 92.8% of the way between 6,000 and 50,000, the score is 92.80

FUTURE MASTER PLAN and congressional add support FY07 construction of a new maintenance hangar with gross SF of 25,500 SF

Future gross square foot=> 51,937 SF (25,000 + 26437)

The highest number of gross SF at any installation is 50,000 SF therefore the qualified future point score is 100.

SOURCE: ACES-RP, Master Plan (NOV 04), Record drawings

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Key Mission Infrastructure
Formula #	1235
Label	Installation Pavements Quality
Effective %	11.95
Question	Identify if the installation pavement for the primary runway can support Airlift aircraft operations. If installation has no runway or no active runway, or no serviceable, suitable runway then score 0 pts. See section 1.9 "Shared" for details. Compute the runway pavement suitability score and the apron pavement suitability score. Each of these is worth 50% of the overall score. **Runway Pavement Suitability:** Find the highest PCN among all the runways. See OSD Question 1235, column 3 for this data. (N/A means 0.) Compute a score for every runway with that PCN and use the highest scoring runway. Score the runway for runway pavement suitability as follows: Get the C-17 ACN. See OSD Question 1236, column 4 for the C-17 ACN. (N/A means 0.) Get the C-5B ACN. See OSD Question 1236, column 6 for the C-5B ACN. (N/A means 0.) If the PCN is N/A or 0, get 0 points. Otherwise, if the C-17 ACN divided by the PCN > 0 and <= 1.0, then get 100 points. Otherwise, if the C-5B ACN divided by the PCN > 0 and <= 1.0, then get 75 points. Otherwise, if the C-5B ACN divided by the PCN > 0 and <= 1.1, then get 50 points. Otherwise, get 0 points. **Apron pavement suitability:** Score each apron for pavement quality and choose the highest scoring apron. Get the C-17 ACN. See OSD Question 1240, column 6 for this data. (N/A means 0.) Get the C-5B ACN. See OSD Question 1240, column 8 for this data.

CRITERION 2
Condition of Infrastructure

INSTALLATION PAVEMENTS QUALITY

There are 2 runways at this installation, but one has the highest runway PLN value, which is 5/23.

5/23 PLN= 53

C-17 ACN 68

C-5 BACN 50

C17 ACN/PCN = 68/53 = 1.28 0<1.28>1.0

C5B ACN/PCN = 50/53 = 0.849 0<0.94<1.0

C5B CAN/PCN Controls

Qualified points is 75

The current APRON PCN is 52

C17 ACN 52
C5B ACN 45

C17 ACN/PCN = 52/52 = 1.0 0< 1.0= 1.0

C5B ACN/PCN = 45/52 = 0.87 0< 0.87< 1.0

However the apron SY does not meet specified criteria of minimum of 137,000 SY. Therefore qualified points is 0.

50 % of Runway score = (.5) (75) = 37.5
50 % of Apron score = (.5) (0) = 0

Overall qualified point score is 37.5

SOURCE: ANG CETC pavement evaluation report, Runway data from previous quoted (runway dimension and service availability), record drawing.

FUTURE EXPANSION qualified point score using data from previous calculations RAMP SY= 214,000 SY

214,000 > 137,000 = Point Score 50
(0.5) (75) + (0.5) (50) = 62.5

Mission	Airlift
Criterion	Condition of Infrastructure
Attribute	Operating Areas
Formula #	1249
Label	Airspace Attributes of DZ/LZ
Effective %	8.30
Question	Check the attributes of USAF-certified Landing Zones / Drop Zones which have current AMC surveys. OSD Question 1249 is assigned to a notional base unit (Widget Unit #216) for technical reasons since the data is identical for all bases. So, regardless of the organization being checked, all references to OSD Question 1249 will find their data under Widget Unit # 216, which was a technical way to avoid having to enter the exact same data once per base. Widget Unit # 216 does not exist in real life. If installation has no runway or active runway, or no serviceable, suitable runway then score 0 pts. See section 1.9 "Shared" for details. Drop Zones (DZ) count for 50% of the overall score. Landing Zones (LZ) count for the remaining 50%. The data on the DZs and LZs is split across two OSD questions, 1249 and 1248. This means that the data in one question has to be matched with its respective data in the other question. This is done by matching the ZAR code, which is found in column 1 of both OSD Questions 1248 and 1249. Compute the points received for each LZ as follows, then total them into an LZ total: If the distance to the LZ > 150 miles, get 0 points. See OSD Question 1248, column 3 for this data. (N/A or no matching LZ in OSD question 1249 means > 50 miles.) Otherwise, if the LZ is >= 3500' by 90', get 100 points. See OSD Question 1249, column 4 for this data. (N/A means no.) Otherwise, if the LZ is >= 3000' by 60', get 50 points. See OSD Question 1249, column 3 for this data. (N/A means no.) Otherwise, get 0 points. Compute the points received for each DZ as follows, then total them into a DZ total: If the distance to the DZ > 150 miles, get 0 points. See OSD Question 1248, column 3 for this data. (N/A or no matching DZ in OSD question 1249 means > 50 miles.) Otherwise, if the DZ is >= 1000 yds by 1500 yds, get 100 points. See OSD Question 1249, column 7 for this data. (N/A means no.)

CRITERION 2
Condition of Infrastructure

AIRSPACE ATTRIBUTES of DZ/LZ

The DZ for this installation is > 700 yds x 1000 yds but < 1000 yds by 1500 yds the qualified point score is 50

The LZ is assumed not to meet criteria

(0.5) (50) + (0.5) (0) = 25

Future LZ is assumed to be> 3500' x 90' = 100

(0.5) (50) + (0.5) (100) = 75

AIRPORT JOINT USE AGREEMENT

BETWEEN

CENTRAL WEST VIRGINIA REGIONAL AIRPORT AUTHORITY

AND

UNITED STATES OF AMERICA

AND

STATE OF WEST VIRGINIA

(YEAGER AIRPORT)

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AIRPORT JOINT USE AGREEMENT

THIS AGREEMENT made and entered into this 22ND day of OCTOBER, 2003, by and between the CENTRAL WEST VIRGINIA REGIONAL AIRPORT AUTHORITY ("Authority"); and the UNITED STATES OF AMERICA, acting by and through the Chief, National Guard Bureau, and the STATE OF WEST VIRGINIA, acting by and through its Adjutant General (collectively, "Government").

RECITALS

A. The Authority owns and operates Yeager Airport, ("Airport"), located in the County of Kanawha, near Charleston, West Virginia.

B. Title 49, United States Code, Chapter 471, "Airport Development," (49 U.S.C. Sections 47101-47129), provides that each of the Airport's facilities developed with financial assistance from the United States Government and each of the Airport's facilities usable for the landing and taking off of aircraft always will be available without charge for use by Government aircraft in common with other aircraft, except that if the use is substantial, the Government may be charged a reasonable share, proportionate to the use, of the cost of operating and maintaining the facilities used.

C. The Government requires substantial use of the flying facilities at the Airport for the West Virginia Air National Guard, as well as for other occasional transient government aircraft.

D. The Authority is agreeable to such substantial use, in common with other users of the Airport, of the flying facilities by the Government under this Agreement.

E. The Government and the Authority desire to provide for the delineation of responsibility for operation and maintenance of the flying facilities jointly used in common with others at the Airport, and to establish the Government's reasonable share, proportional to such use, of the cost of operating and maintaining such jointly used flying facilities.

AGREEMENT:

1. DEFINITIONS

For purposes of this Agreement, the Jointly Used Flying Facilities of the Airport are the runways, taxiways, lighting systems, navigational aids, markings and appurtenances open to public use and use by the Government, including all improvements and facilities pertaining thereto and situated thereon and all future additions, improvements, and facilities thereto as may be added or constructed from time to time. They do not include land areas used exclusively by the Government or the terminal buildings, hangars, aircraft parking aprons and ramps, or other

areas or structures used exclusively by the Authority or its lessees, permittees, or licensees for civilian or commercial purposes.

2. JOINT USE

Subject to the terms and conditions of this Agreement, the Government shall have the use, in common with other users of the Airport, present and prospective, of the Jointly Used Flying Facilities, together with all necessary and convenient rights of ingress and egress to and from the Jointly Used Flying Facilities and the Air National Guard installation and other Government facilities located on the Airport. Routes for ingress and egress for the Government's employees, agents, customers and contractors shall not unduly restrict the Government in its operations.

3. AUTHORITY RESPONSIBILITIES

The Authority will be responsible for the following services and functions, to standards in accordance with Paragraph 6 below:

a. Furnishing all personnel, materials and equipment required in the rendering of the services to be provided under the Agreement.

b. Performing any and all maintenance of the Jointly Used Flying Facilities, including but not limited to:

(1) Joint sealing, crack repair, surface repairs, airfield markings and repair or replacement of damaged sections of airfield pavement;

(2) Runway, taxiway, and approach lighting and the regulators and controls therefor;

(3) Beacons, obstruction lights, wind indicators, and other navigational aids;

(4) Grass cutting and grounds care, drainage, and dust and erosion control of unpaved areas, adjacent to runways and taxiways;

(5) Controlling insects and pests in the common use area;

(6) Removing snow, ice and other hazards from runways and taxiways within a reasonable time after such runways and taxiways have been so encumbered.

c. Furnishing utilities necessary to operate the Jointly Used Flying Facilities.

4. GOVERNMENT RESPONSIBILITIES

The Government will be responsible for the following:

a. Removing disabled Government aircraft and civil aircraft as expeditiously as possible in order to minimize the time the Jointly Used Flying Facilities, or any part thereof, would be closed because of such aircraft.

b. Removing snow and ice from all ramps, aprons, and taxiways used exclusively by Government aircraft.

c. Subject to availability of appropriations therefor, repairing within a reasonable time damage to the Jointly Used Flying Facilities to the extent that such damage is caused solely by Government aircraft operations and is in excess of the fair wear and tear resulting from the military use contemplated under this Agreement.

d. Providing "on-call" assistance in sweeping runways and taxiways in the form of "manned" equipment, as available, consistent with military operations as determined by the Government.

e. Making its aircraft maintenance hangars available for use as temporary morgues in the event of a fatal aircraft accident at the Airport, consistent with military operations as determined by the Government.

f. Providing personnel to secure any civil aircraft crash site that is within the boundaries of the Airport until arrival of Federal Aviation Administration ("FAA") representatives, consistent with military operations as determined by the Government.

g. Providing aircraft fire fighting and crash rescue services, subject to Paragraph 8 of the Agreement.

5. PAYMENTS

a. In consideration of and for the faithful performance of this Agreement, and subject to the availability of Federal appropriations, the Government shall pay to the Authority as its proportionate share of operating and maintaining the Jointly Used Flying Facilities, the following:

(1) For the one (1)-year period beginning July 1, 2003, and ending June 30, 2003, the amount of Ten Thousand Dollars and 00/100 ($10,000.00), payable as follows:

(a) The amount of Two Thousand Five Hundred Three Dollars and 00/100 ($2,503.00) within forty-five (45) days after execution of the Agreement by all parties.

(b) The amount of Seven Thousand Four Hundred Ninety-seven Dollars and 00/100 ($7,497.00) in equal monthly installments of Eight Hundred and Thirty Three Dollars and 00/100 ($833.00) each for the remaining nine (9) months of the year.

(2) For the two (2)-year period beginning July 1, 2004, and ending June 30, 2006, the nominal amount of One Dollar and 00/100 ($1.00) per year.

b. Payments for the periods set out in Paragraph 5a above shall be made upon submission of appropriate invoices to the Government as designated in Paragraph 5c below; provided, however, that if during the term of this Agreement, sufficient funds are not available through the annual appropriations at the beginning of any fiscal year to carry out the provisions of this Agreement, the Government will so notify the Authority in writing.

c. Bills for the payments provided hereunder shall be directed to:

130 TAG/AC
West Virginia Air National Guard
Yeager Airport
Charleston, West Virginia 25311

or to such other address as the Government may from time to time provide to the Authority in writing.

d. Either party may request renegotiation if either party, at the request or with the formal concurrence of the other, as the case may be, requires services not contemplated by this Agreement, or reduces or eliminates services it undertakes to provide under this Agreement.

6. AIRFIELD MANAGEMENT

The Authority agrees that maintenance of the Jointly Used Flying Facilities shall, at all times, be in accordance with FAA standards for the operation of a commercial airport and operation of jet aircraft.

7. GOVERNMENT RESERVED RIGHTS

The Government reserves the right, at its sole cost and expense, to:

a. Provide and maintain in the Jointly Used Flying Facilities airfield markings required solely for military aircraft operations, which are not in conflict with FAA standards.

b. Install, operate and maintain in the Jointly Used Flying Facilities any and all additional equipment, necessary for the safe and efficient operation of military aircraft including but not limited to arresting systems and navigational aids.

8. FIRE PROTECTION AND CRASH RESCUE

a. Government fire protection and crash rescue requirements for its aircraft operations are greater than that required by the FAA for commercial and general aviation activities. The Government maintains a fire fighting and crash rescue organization in support of military operations at the Airport. Within the limits of the existing capabilities of this organization, the Government agrees to respond to fire and crash rescue emergencies involving civil aircraft, subject to subparagraphs 8b, 8c, and 8d below.

b. The Authority agrees to release, acquit, and forever discharge the Government, its officers, agents, and employees for all liability arising out of or connected with the use of or failure to supply in individual cases, Government fire fighting and crash rescue equipment or personnel for fire control and crash rescue activities at or in the vicinity of the Airport. The Authority further agrees to the extent allowed under applicable law to indemnify, defend, and hold harmless the Government, its officers, agents, and employees against any and all claims, of whatever description, arising out of or connected with such use of or failure to supply in individual cases, Government fire fighting and crash rescue equipment or personnel, except where such claims arise out of or result from the gross negligence or willful misconduct of the officers, agents, or employees of the United States, without contributory fault on the part of any person, firm, or corporation. The Authority agrees to execute and maintain in effect a hold harmless agreement as required by applicable Air Force instructions for all periods during which emergency fire fighting and crash rescue service is provided to civil aircraft by the Government.

c. The Authority will reimburse the Government for expenses incurred by the Government for fire fighting and crash rescue materials expended in connection with providing such service to civil aircraft.

d. The Government's responsibility under this Paragraph 8 shall continue only so long as a fire fighting and crash rescue organization is authorized for military operations at the Airport. The Government shall have no obligation to maintain any fire fighting and crash rescue organization or to provide any increase in fire fighting and crash rescue equipment or personnel or to conduct any training or inspection for the purposes of this Paragraph. It is further understood that the Government's fire fighting and crash rescue equipment shall not be routinely parked on the Jointly Use Flying Facilities during non-emergency landings of civil aircraft.

9. RECORDS AND BOOKS OF ACCOUNT

The Authority agrees to keep records and books of account, showing the actual cost to it of all items of labor, materials, equipment, supplies, services, and other expenditures made in fulfilling the obligations of this Agreement. The Comptroller General of the United States or any of his or her duly authorized representatives shall, until the expiration of three (3) years after final payment, have access at all times to such records and books of account, or to any directly pertinent books, documents, papers, and records of any of the Authority's contractors or

subcontractors engaged in the performance of and involving transactions related to this Agreement. The Authority further agrees that representatives of the Air Force Audit Agency or any other designated representative of the Government shall have the same right of access to such records, books of account, documents and papers as is available to the Comptroller General.

10. TERM

This Agreement shall be effective for a term of three (3) years beginning July 1, 2003, and ending June 30, 2006.

11. TERMINATION

a. This Agreement may be terminated by the Government at any time by giving at least thirty (30) days' notice thereof in writing to the Authority.

b. (1) The Government, by giving written notice to the Authority, may terminate the right of the Authority to proceed under this Agreement if it is found, after notice and hearing by the Secretary of the Air Force or his or her duly authorized representative, that gratuities in the form of entertainment, gifts, or otherwise, were offered or given by the Authority, or any agent or representative of the Authority, to any officer or employee of the Government with a view toward securing this Agreement or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such agreement, provided that the existence of the facts upon which the Secretary of the Air Force or his or her duly authorized representative makes such findings shall be an issue and may be reviewed in any competent court.

(2) In the event this Agreement is terminated as provided in subparagraph 11b(1) above, the Government shall be entitled to pursue the same remedies against the Authority as it could pursue in the event of a breach of the Agreement by the Authority and in addition to any other damages to which it may be entitled by law, the Government shall be entitled to exemplary damages in an amount (as determined by the Secretary of the Air Force or his or her duly authorized representative) which shall be not less than three (3) or more than ten (10) times the costs incurred by the Authority in providing any such gratuities to any such officer or employee.

(3) The rights and remedies of the Government provided in subparagraph 11b(2) above shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

12. GENERAL PROVISIONS

a. Compliance with Law. The Authority shall comply with all Federal, state and local laws, rules and regulations applicable to the activities conducted under this Agreement.

b. Assignment. The Authority shall neither transfer nor assign this Agreement without the prior written consent of the Government, which shall not be unreasonably withheld or delayed.

c. Liability. Except as otherwise provided in this Agreement, neither party shall be liable for damages to property or injuries to persons arising from acts of the other in the use of the Jointly Used Flying Facilities or occurring as a consequence of the performance of responsibilities under this Agreement.

d. Third Party Benefit. No member or delegate to Congress shall be admitted to any share or part of this Agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

e. Entire Agreement. It is expressly agreed that this written instrument embodies the entire financial arrangement and agreement of the parties regarding the use of the Jointly Used Flying Facilities by the Government, and there are no understandings or agreements, verbal or otherwise, between the parties in regard to it except as expressly set forth herein. Specifically, no landing fees or other fees not provided in this Agreement will be assessed by the Authority against the Government in the use of the Jointly Used Flying Facilities during the term of this Agreement.

f. Modification. This Agreement may only be modified or amended by mutual agreement of the parties in writing and signed by each of the parties hereto.

g. Waiver. The failure of either party to insist, in any one or more instances, upon the strict performance of any of the terms, conditions, covenants, or provisions of this Agreement shall not be construed as a waiver or relinquishment of the right to the future performance of any such terms, conditions, covenants, or provisions. No provision of this Agreement shall be deemed to have been waived by either party unless such waiver be in writing signed by such party.

h. Paragraph Headings. The brief headings or titles preceding each Paragraph and subparagraph are merely for purposes of identification, convenience, and ease of reference, and will be completely disregarded in the construction of this Agreement.

13. MAJOR REPAIRS AND NEW CONSTRUCTION

Major repair projects and/or new construction projects required for the Jointly Used Flying Facilities (collectively, "Joint Use Projects") are not included under this Agreement. Any Government contribution to Joint Use Projects shall be the subject of separate negotiations and written agreement between the Authority and the Government at such time as the work is

required. Any Government participation in the costs of Joint Use Projects is subject to the availability of Federal funds for such purpose at the time the work is required.

14. NOTICES

No notice, order, direction, determination, requirement, consent or approval under this Agreement shall be of any effect unless it is in writing and addressed as provided herein.

a. Written communications to the Authority shall be addressed to:

Central West Virginia Regional Airport Authority
Yeager Airport
Charleston, West Virginia 25311

b. Written communications to the Government shall be in duplicate with copies to the United States of America and the State of West Virginia addressed respectively, as follows:

To the United States of America:

ANG/CE
3500 Fetchet Avenue
Andrews AFB, Maryland 20762-5157

To the State of West Virginia:

The Adjutant General
1703 Coonskin Drive
Charleston, West Virginia 25311-1085

IN WITNESS WHEREOF, the respective duly authorized representatives of the parties hereto have executed this Agreement on the date set forth opposite their respective signatures.

Dated: October 22, 2003

CENTRAL WEST VIRGINIA
REGIONAL AIRPORT AUTHORITY

By: R. Edison Hill
Chairman

Dated: _____

STATE OF WEST VIRGINIA

Coordinated with:

Richard Dillon, COL, NGB
U.S. Property & Fiscal Officer

By: Allen C. Tackett
The Adjutant General

Dated: 19 DEC 03

UNITED STATES OF AMERICA

By: [illegible] M. [illegible]
For the Chief, National Guard Bureau

MINUTES OF THE EMERGENCY MEETING OF THE BOARD OF MEMBERS OF THE CENTRAL WEST VIRGINIA REGIONAL AIRPORT AUTHORITY

May 18, 2005

An emergency meeting of the Board of Members of the Central West Virginia Regional Airport Authority was held in the Public Use Conference Room of the Airport Director's Office, Yeager Airport, Charleston, West Virginia on May 18, 2005, beginning at 11:00 a.m., pursuant to proper notice to the public and to the news media.

Board Members present: R. Edison Hill, Henry Shores, Charles Jones, Harold Carter, Priscilla M. Haden, Karen Haddad, and Charles "Chip" McDowell, representing the Kanawha County Commission; James E. Foster, representing the City of Charleston; Gregory A. Tucker, representing the Nicholas County Commission; and Lawrence Barrett (via phone), representing the Lincoln County Commission.

Board Members absent: H. B. Wehrle, III and Samuel M. Bowling, representative of the Kanawha County Commission; Norman W. Shumate, III, representative of the City of Charleston; Phillip Stowers, representative of the Putnam County Commission; and Joe E. Cooke, representative of the Boone County Commission.

Also present: Chuck Bailey of Bailey and Wyant, PLLC, legal counsel; Richard A. Atkinson, III, Airport Director; Timothy C. Murnahan, Assistant Airport Director; David Sweeney, Assistant Airport Director; Brian Belcher, Airport Marketing Director; Brenda J. Thomas, Airport Executive Secretary; Bill Forbes, Airport Construction Chairman; Carroll Hutton, Airport General Aviation Chairman; Daniel P. Haught; Susie Dunn, Kanawha County Commission; John Caudill; Terry Hill, Yeager Airport; Nick Keller, Yeager Airport Intern; Major John Dulin, 130th Airlift Wing, WVANG; Retired Colonel Bill Peters, 130th Airlift Wing, WVANG; Mike Plante and Beth White, Plante & Associates; Jennifer Smith; Wanda Carney from West Virginians Want To Know; Larry McKay, reporter for WQBE; Rick Steelhammer, reporter for the Charleston Gazette; Allison Barker, news reporter for the Associated Press; and News Reporters for Channel 13, Channel 3, Fox Network, and Channel 3.

The Chairman, Mr. Hill, called the meeting to order and introductions were made.

The purpose of the meeting was to consider actions relative to the Airport Master Plan in relation to expansion of the West Virginia Air National Guard Base and funding to support efforts to retain the 130th Airlift Wing, WVANG.

The Chairman recognized the President of the Kanawha County Commission, W. Kent Carper. Commissioner Carper urged the Airport Authority to donate $25,000, the Kanawha County Commission $25,000, and the Charleston Area Alliance Group $25,000 to form a Grassroots Group, "Keep 'Em Flying," that would be opposed to the realignment proposal for the 130th Airlift Wing WVANG and to lease the WVANG additional parking space at a cost of $1.00. Commissioner Carper would hope to use the funds to obtain a state-matching grant. Mr. Shores moved to accept the recommendation, seconded by Mr. Carter, which was unanimously approved. The money donated by Yeager Airport would be taken out of the excess parking revenue fund. Commissioner Hardy pledged the support of the Kanawha County Commission and stated he would work hard to encourage the Charleston Area Alliance to support this group. Mayor Danny Jones also said the City of Charleston would help.

The Grass Roots Committee would be headed by Col. Peters and would look at the BRAC regulations and form merit-based arguments against moving the airplanes.

Mr. Atkinson reported if the C-130's were removed from Yeager Airport, there would be the possibility of losing 24-hour service at Air Traffic Control.

The Budget for the Grass Roots Committee would be presented at the May 25, Board Meeting.

There being no further business to be discussed, the meeting adjourned.

Chairman

Secretary/Treasurer

Central West Virginia Regional Airport Authority

John D. Rockefeller IV Terminal
100 Airport Road, Suite 175 • Charleston, WV 25311-1080
Phone: 304-344-8033 Fax: 304-344-8034
E-Mail: fly@yeagerairport.com www.yeagerairport.com

Yeager Airport

June 9, 2005

Major General Allen E. Tackett
Army National Guard
1703 Coonskin Drive
Charleston, WV 25311-1085

SUBJECT: Runway 15/33 and Taxiway "C"

In the event of natural emergencies or surges of military activity, the 130th Airlift Wing, West Virginia Air National Guard may need to use additional real estate at Yeager Airport, Kanawha County, West Virginia.

During those times of natural emergencies or surges of military activity, Yeager Airport will close runway 15/33 and taxiway "C" to civilian access and civilian use. During those times of natural emergencies or surges of military activity, Yeager Airport will permit the 130th Airlift Wing, West Virginia Air National Guard exclusive use of runway 15/33 and taxiway "C" for military purposes.

Upon notice to the Yeager Airport Manager from the 130th Airlift Wing Commander, Yeager Airport will implement the closure of runway 15/33 and taxiway "C" to civilian use and permit the 130th Airlift Wing, West Virginia Air National Guard exclusive use of runway 15/33 and taxiway "C" for military purposes. Yeager Airport trusts the discretion of the 130th Airlift Wing Commander to only request the closure of runway 15/33 and taxiway "C" for appropriate reasons and lengths of time.

Sincerely,

Richard A. Atkinson, III
Airport Director

Central West Virginia Regional Airport Authority

John D. Rockefeller IV Terminal
100 Airport Road, Suite 175 • Charleston, WV 25311-1080
Phone: 304-344-8033 Fax: 304-344-8034
E-Mail: fly@yeagerairport.com www.yeagerairport.com

Yeager Airport

June 10, 2005

Major General Allen Tackett
West Virginia National Guard
1703 Coonskin Drive
Charleston, WV 25311-1085

Dear General Tackett:

I am pleased to formally inform you the Central WV Regional Airport Authority, at a special meeting held on May 18, 2005, voted to close the crosswind runway, RW 15/33, and allow the WV National Guard to lease a portion of the closed runway for a dollar per year if the space is needed by the 130th Airlift Wing to expand the aircraft parking ramp.

I have enclosed a copy of the Minutes from that meeting for your information.

If you have any questions on this matter, please feel free to contact me at 304-344-8033.

Sincerely,

Richard Atkinson, III
Airport Director

Enclosure

Central West Virginia Regional Airport Authority

John D. Rockefeller IV Terminal
100 Airport Road, Suite 175 • Charleston, WV 25311-1080
Phone: 304-344-8033 Fax: 304-344-8034
E-Mail: fly@yeagerairport.com www.yeagerairport.com

Yeager Airport

June 10, 2005

Major General Allen Tackett
West Virginia National Guard
1703 Coonskin Drive
Charleston, WV 25311-1085

Dear General Tackett:

Colonel Tim Fyre, Wing Commander of the 130th, has informed me of the need of the 130th to have access to an assault tactical landing strip in close proximity to the base. I am pleased to offer the conversion of the crosswind runway, RW 15/33 for use as a tactical landing strip. I understand the runway must be laid out in a 3,500 foot by 60-foot configuration. This can be easily accomplished on the present 4,750 foot by 150-foot configuration.

If you have any questions on this matter, please feel free to contact me at 304-344-8033.

Sincerely,

Richard Atkinson, III
Airport Director

35th CIVIL SUPPORT TEAM
MEMORANDUM

WEST VIRGINIA ARMY NATIONAL GUARD
35TH CIVIL SUPPORT TEAM (WMD)
610 Dame Street
St. Albans, WV 25177

JFHQ-WV-CST 26 May 2005

MEMORANDUM FOR COL Timothy L. Frye, Commander, 130th Airlift Wing, West Virginia Air National Guard, 1679 Coonskin Drive, Charleston, West Virginia 25311-1085

SUBJECT: 130th Airlift Wing Importance to Homeland Defense

1. The 130th Airlift Wing is a tremendous resource to the 35th Civil Support Team – Weapons of Mass Destruction and the Homeland Defense community. Having the 130th Airlift Wing assists us in supporting the National Response Plan.

2. The Civil Support Teams are deployable within the geographical limits of the United States, its territories and possessions, the District of Columbia, and the Commonwealth of Puerto Rico in support of emergency preparedness programs to prepare for or to respond to any emergency involving the use of a weapon of mass destruction (WMD). Having the 130th Airlift Wing in our state is an excellent resource to move the Civil Support Team to a WMD incident within a few hours of the incident, no matter where it may occur on our soil.

3. Civil Support Teams from around our nation have utilized the 130th Airlift Wing when conducting air movement from their states to Yeager Airport and then to the Center for National Response for WMD training. The 130th Airlift Wing has assisted these teams in successfully conducting their required air movement. Some of these units have pre-staged their equipment on the secure Air Guard Base awaiting the arrival of their team members. I have received excellent comments about the 130th Airlift Wing from other Civil Support Team commanders who have utilized their services.

4. We have worked with the 130th Airlift Wing on missions to include Presidential visits, the Governors' inauguration and the Southern Governor's conference. The personnel of the 130th Airlift Wing are dedicated service members who will defend this nation at home or abroad.

5. The West Virginia Homeland Defense Joint Task Force is currently developing and testing Project Oculus in concert with West Virginia University and the Counter Drug Consortium. This state of the art sensor platform is designed to insert into a C130 aircraft. The 130th Airlift Wing serves as the primary location to flight test this equipment as well as transportation of the equipment and personnel based in Charleston, West Virginia to various demonstration projects throughout the nation.

JFHQ-WV-CST 26 May 2005

SUBJECT: 130th Airlift Wing Importance to Homeland Defense

6. The 130th Airlift Wing C130's directly support the 35th Civil Support Team and the West Virginia National Guard's Chemical, Biological, Radiological, Nuclear or High Yield Explosive Enhanced Response Force Package (CERFP) in times of emergencies. The CERFP is only one of twelve units in the Nation. Both teams are tasked in the national response plans.

7. They have assisted us on numerous occasions over the past several years. Providing assistance with weighing and measuring our vehicles, joint inspections, hazardous material declaration and loading of aircrafts just to mention a few.

8. Civil Support Teams are joint units comprised of Army and Air Guard personnel. I have three Air Guard personnel assigned to my unit which makes us a "purple" unit. These personnel bring an invaluable knowledge of the Air Guard community to my unit and have assisted me with a better understanding of Air Guard operations.

9. Losing the 130th Airlift Wing will impact our ability to support the National Response Plan, conduct regular airlift and joint operations.

10. Point Of Contact is the undersigned at 304-561-6210.

JEFFREY A. PRICE
MAJ, CM, WVARNG
Commanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE NATIONAL GUARDS OF THE
DISTRICT OF COLUMBIA, THE STATES OF DELAWARE,
MARYLAND, PENNSYLVANIA, WEST VIRGINIA,
AND THE COMMONWEALTH OF VIRGINIA

SUBJECT: National Guard Emergency Operations within the Territorial Limits of the Parties

1. PURPOSE. The Commanding General, District of Columbia National Guard and the Adjutant Generals of the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia, enter into this Memorandum of Understanding (MOU) to ensure mutual aid, support, and cooperation between and among the parties in response to a critical incident occurring within the District of Columbia and/or the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia. Additionally, this MOU serves to clarify the military operations of National Guard forces employed pursuant to the Emergency Management Assistance Compact (EMAC).

2. REFERENCES. The EMAC as enacted by and between the participating member states.

a. Title 7, Chapter 23A, Sections 7-2331- 7-2332, District of Columbia Code
b. 20 Delaware Code, Sections 3401-3403
c. Sections 14-701-14-702, Maryland Public Safety Code Annotated
d. Title 35 Pa C.S.A, Sections 7601-7604
e. Chapter 44, Section 44-146.28:1, Code of Virginia
f. Chapter 15, Article 5, Section 22, West Virginia Code

3. DEFINITIONS.

a. For purposes of this MOU, the National Capital Region (NCR) is the geographic area defined by the member jurisdictions of the Metropolitan Washington Council of Governments, and encompasses: the District of Columbia; the Maryland Counties of Prince George's, Montgomery and Frederick; and Virginia Counties of Fairfax, Arlington, Loudon and Prince William; and the Virginia cities of Alexandria, Fairfax, Falls Church and Manassas.
b. "Critical Incident" as used in this MOU means any emergency or disaster that is duly declared by the Governor of the affected State or the Mayor of the District of Columbia pursuant to the EMAC, whether such emergency or disaster arises from a natural disaster, technological hazard, man-made disaster, civil emergency aspects of resource shortages, community disorders, insurgency, or enemy attack.
c. The EMAC is the basic legal agreement between the participating member states for mutual aid and assistance in managing any emergency or natural disaster, to include the use of the District of Columbia and/or the States of

Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia National Guard forces.

4. SCOPE. This MOU encompasses National Guard support to the geographic areas of the District of Columbia and/or the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia. This MOU does not override state, commonwealth or District of Columbia law. The requirements set forth in the parties' states EMAC statutes will be adhered to at all times.

5. The parties' National Guard forces will establish a Joint National Guard Planning Cell to establish effective joint plans for responding to critical incidents within the District of Columbia and/or the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia. The cell will consist of representation from each member jurisdiction and will develop Joint Operational Plans.

6. Upon the occurrence of a critical incident within the District of Columbia and/or the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia, the Adjutant Generals or Commanding General of the receiving jurisdiction will establish a Joint National Guard Operational Cell, with representatives from each of the National Guard forces. The Joint National Guard Operational Cell will coordinate requests for assistance within the supported jurisdiction, recommend the assignment/attachment of forces provided pursuant to the EMAC, and recommend the prioritization of resources in response to a critical incident affecting multiple jurisdictions.

7. Subject to the approval of the emergency services authority of the receiving jurisdiction, the Adjutant Generals or Commanding General of that jurisdiction will assume the lead role in coordinating the use of units from a supporting State, Commonwealth, or the District of Columbia. However, such units shall remain under the administrative control of the Adjutant Generals or Commanding General of the supporting jurisdiction.

8. The parties to this understanding also concur that the National Guard must have a presence in the Military District of Washington Joint Force Headquarters – National Capitol Region Operations Center if the critical incident occurs within the National Capital Region.

9. The use of the DCNG and its equipment is subject to the approval of the Secretaries of the Army and Defense, as appropriate. The use of the National Guard of the District of Columbia and/or the States of Delaware, Maryland, Pennsylvania, West Virginia, and the Commonwealth of Virginia, is subject to the approval of the Attorney General, as appropriate.

10. EFFECTIVE DATE. This understanding shall be effective on the date signed by all parties and may be amended at any time by agreement of all parties. This MOU shall remain in effect until revoked and any party may withdraw its consent to this MOU upon providing written notice to the remaining parties.

Allen E. Tackett

ALLEN E. TACKETT
MG, West Virginia National Guard
The Adjutant General

19 May 2005
(date)

David F. Wherley

DAVID F. WHERLEY, JR.
MG, DC National Guard
Commanding General

14 May 2005
(date)

BRUCE F. TUXILL
MG, Maryland National Guard
The Adjutant General

(date)

CLAUDE A. WILLIAMS
MG, Virginia National Guard
The Adjutant General

(date)

JESSICA L. WRIGHT
MG, Pennsylvania National Guard
The Adjutant General

(date)

FRANCIS VAVALA
MG, Delaware National Guard
The Adjutant General

(date)

MEMORANDUM OF UNDERSTANDING
AMONG THE STATES OF
MARYLAND, PENNSYLVANIA, VIRGINIA, WEST VIRGINIA
AND THE DISTRICT OF COLUMBIA

WHEREAS, the 55th U.S. Presidential Inauguration has been designated a National Special Security Event (NSSE) by the Honorable Tom Ridge, Secretary, U.S. Department of Homeland Security, and comprises security operations during the Inauguration, including the activities concerning the swearing-in ceremony, parade route, White House reviewing stand, and Presidential Inaugural balls;

WHEREAS, the U.S. Secret Service (USSS), U.S. Department of Homeland Security, has been designated as the Lead Federal Agency (LFA) to provide security for this event

WHEREAS, the USSS is concerned that the anticipated large gathering of citizens and the highly visible nature of the events creates a potential threat or aggression against the United States via attacks from various ground positions along the parade route and at the various NSSE venues.

WHEREAS, the District of Columbia Mayor, Anthony A. Williams, has requested that the DCNG provide one Civil Support Team (CST) and a quick reaction force (QRF) to respond to events associated with the 55th U.S. Presidential Inauguration. (See Annexes I and II).

WHEREAS, in response to the Mayor's request, the Secretaries of Defense and Army have authorized a QRF, Civil Support Team (CST), and Chemical, Biological, Radiological, Nuclear, and High Explosive (CBRNE)/Enhanced Response Force Package (CERFP) to be on standby to support the District of Columbia Metropolitan Police Department (DCMPD) in response to events causing disruption to Inaugural activities. (See Annexes III and IV).

NOW THEREFORE, the parties enter into the following agreement and understanding:

1. **SCOPE OF MISSIONS.**

a. National Guard units and members in response to the Mayor's request will provide the following support:

(1) Maryland National Guard – QRF

(2) Virginia National Guard – CST Team

(3) West Virginia National Guard – CERFP, CST Team and QRF

(4) Pennsylvania National Guard – CST Team

b. All missions will be conducted in accordance with law, Executive Orders and applicable DoD Directives, Instructions and Regulations.

2. **DEFINITIONS.**

a. **The National Capital Region (NCR)** is the geographic area defined by the member jurisdictions of the Metropolitan Washington Council of Governments, and encompasses: the

District of Columbia; the Maryland Counties of Prince George's and Montgomery; the Virginia Counties of Arlington, Fairfax, Loudoun and Prince William; and the Virginia cities of Alexandria, Fairfax, Manassas and Manassas Park.

b. **Tactical control (TACON)** is the command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and usually local direction and control of movements or maneuvers necessary to accomplish assigned missions or tasks.

3. **PURPOSE** The Adjutants General of Maryland, Pennsylvania, Virginia, West Virginia, and the Commanding General, District of Columbia (CG DCNG), enter into this MOU to clarify military command and control (C^2) of National Guard units and personnel, and to ensure mutual aid, support, and cooperation between the parties in support of the Mayor's request within the boundaries of the District of Columbia.

4. **SCOPE OF SUPPORT**. This mission may transcend political jurisdictional boundaries and intergovernmental coordination is essential in managing this mission. The parties consent to interstate operations as necessary to conduct these missions. Additionally, the CG DCNG, has coordinated with the Adjutants General of the National Guards of the States of Maryland and West Virginia. Each has agreed to place a company-sized QRF on standby in a Title 32 training status in their respective states during the Inaugural period. In an immediate, emergency response to a disruption of inaugural activities, the Adjutants General will, if requested by the CG DCNG, move those forces into the District of Columbia to assist the DCNG in supporting the DCMPD and the DCEMA.

a. The CG DCNG, will assume the lead role in coordinating the use of units from the Virginia, Maryland West Virginia, and Pennsylvania National Guards for incidents which occur within the District of Columbia. To establish effective plans, the National Guard forces of the parties hereto will establish a Joint National Guard Planning Cell. The Cell will consist of representation from each member jurisdiction.

b. The CG, DCNG is authorized to provide associated command, control (TACON) and coordinate logistical support to ensure the proper performance of this mission. However, the Virginia, Maryland, West Virginia and Pennsylvania National Guard personnel supporting this mission shall remain under the administrative control of their respective Adjutant General.

c. For events that occur outside the District of Columbia, command and control will be assumed by the Adjutant General of that state.

d. For events that cross state boundaries, additional coordination and approval will be required to establish C^2.

5. **ADDITIONAL PROVISIONS**.

a. **Rules on the Use of Force**. National Guard members will comply with the laws of the District of Columbia in the event that such personnel are required to move into the District of Columbia.

b. **Arming**. National Guard personnel providing support in accordance with this MOU, for incidents which occur within the District of Columbia, will be unarmed unless specifically

authorized by the Secretaries of Defense and Army and the U.S. Attorney General, as appropriate.

c. **Deputation**. National Guard personnel providing support pursuant to this MOU will be designated as "special police" under Section 5-129.03 of the District of Columbia Code, as appropriate and authorized, if supporting the DC National Guard to aid civilian authorities of the District of Columbia.

d. **Conflicts**. This MOU shall be read and construed to complement and not conflict with existing interstate compacts.

6. **EFFECTIVE DATE**. This understanding shall be effective on the date signed by all parties and may be amended at any time by agreement of all parties. This MOU shall remain in effect until 1200 hours, 21 January 2005, unless extended by mutual agreement and proper authority.

BRUCE F. TUXILL
MG, Maryland National Guard
The Adjutant General

Date

DAVID F. WHERLEY, JR.
MG, DC National Guard
Commanding General

20 Jan 2005
Date

CLAUDE A.WILLIAMS
MG, Virginia National Guard
The Adjutant General

Date

JESSICA L. WRIGHT
MG, Pennsylvania National Guard
The Adjutant General

Date

ALLEN E. TACKETT
MG, West Virginia National Guard
The Adjutant General

20 Jan 2005
Date

ANTHONY A. WILLIAMS
MAYOR

December 20, 2004

Major General David Wherley
Commanding General
DC National Guard
2001 East Capitol Street
Washington, DC 20003-1719

Dear General Wherley:

In support of the 55th Presidential Inaugural, I am requesting the following resources to assist the District of Columbia in our preparedness and response activities during the period January 19-20, 2004:

Provide 400 National Guard personnel to assist the Metropolitan Police Department (MPD) in the following areas:

- Personnel to man critical intersections along the Inaugural Parade route;
- Support to each of the seven districts within MPD;
- Provide liaisons to the MPD's Synchronized Operations Command Complex and the EMA's Emergency Operations Center;
- One Civil Support Team and a response company to respond to events associated with disrupting inaugural activities; and
- Personnel and equipment to assist with snow removal along parade route.

Please contact Barbara Childs-Pair, Director of the DC Emergency Management Agency to coordinate this request for assistance on (202) 727-3150.

Thank you in advance for your consideration of this request for assistance.

Sincerely,

Anthony A. Williams

Anthony A. Williams

ANTHONY A. WILLIAMS
MAYOR

January 12, 2005

Major General David Wherley
Commanding General
[illegible]
2001 East Capitol Street
Washington, DC 20003-1719

Dear General Wherley:

This correspondence is to request an amendment to my letter of December 20, 2004 (attached), to include the following language:

"Personnel for this mission to support the Metropolitan Police Department will be designated as special police."

Thank you in advance for your assistance.

Sincerely,

Anthony A. Williams

Anthony A. Williams

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

January 11, 2005

MEMORANDUM FOR THE SECRETARY OF THE ARMY

SUBJECT: Presidential Inaugural Support

The United States Secret Service (USSS) has requested DoD support for the Presidential Inauguration period in Washington, D.C. The Secretary of Homeland Security has designated the 55th Presidential Inauguration a National Special Security Event (NSSE). NSSE venues include the Capitol, the parade route, the White House reviewing stand, and numerous balls. The USSS has been designated the lead agency for the design, plan, and implementation of NSSE security operations.

Subject to requisite coordination with The Attorney General, you are authorized to direct the Commanding General of the District of Columbia National Guard (DCNG) to provide support to the USSS in the conduct of security operations at access control points established for the inauguration. We understand that in coordination with the Chief, National Guard Bureau, the Commanding General, DCNG, may coordinate with the National Guard forces of other states to assist in providing the requisite support. Support to the USSS will be provided generally in accordance with the USSS memorandum dated December 15, 2004, attached, except that, as appropriate, you may direct the Commanding General, DCNG, to modify the scope of support and the duties to be performed by support personnel. National Guard support personnel should plan to arrive in the Washington, D.C. area no later than January 18, 2005, for planning, coordination, and USSS-provided training. National Guard personnel supporting this mission must be able to do so in a training status. This support will be provided on a non-reimbursable basis. The expenditure of Federal funds appropriated to the DoD should be identified and recorded, however.

Additionally, the Commanding General, DCNG, as assisted by the National Guard forces of other states, is authorized to provide associated command, control and logistical support to ensure proper performance of this mission.

All support provided by the DCNG, including that provided with the assistance of the National Guard forces of other states, will be subject to appropriate coordination with the Commander, Joint Force Headquarters, National Capital Region (JFHQS-NCR).

The USSS point of contact is Assistant Special Agent in Charge Ramon Rendon at (202) 406-7676. The OSD Executive Secretariat point of contact is LTC John Fenzel at (703) 692-7127.

Paul Wolfowitz
Deputy Secretary of Defense

Attachment:
As stated

CC:
SAF
Chief, NGB
Cdr, DCNG
ASD(HD)
OGC
USC

SECRETARY OF THE ARMY
WASHINGTON

January 18, 2005

Major General David Wherley
Commanding General
District of Columbia National Guard
2001 East Capitol Street SE
Washington, DC 20003-1719

Dear General Wherley:

This responds to your letter of December 21, 2004, regarding Mayor Anthony Williams' request that the District of Columbia National Guard (DCNG) support the District of Columbia Metropolitan Police Department (DCMPD) and the District of Columbia Emergency Management Agency (DCEMA) in executing duties associated with the 55th Presidential Inaugural to be held in Washington, D.C., over the period of January 19-20, 2005. Pursuant to my request of January 13, 2005 (Enclosure 1), the Attorney General has reviewed the proposed assistance plan and concluded that such assistance is legally permissible (Enclosure 2).

Further, this letter formally implements the Deputy Secretary of Defense memorandum of January 11, 2005, in which, subject to coordination with the Attorney General, he authorized me to direct the DCNG to provide support to the U.S. Secret Service (USSS). Accordingly, I hereby direct you to provide support to the USSS over the period January 18-20, 2005 for the 55th Presidential Inaugural. As authorized by the Deputy Secretary's directive, I have modified the scope of the mission to be performed in support of the USSS. Members of the National Guard will serve as public liaison officers whose duties include advising persons seeking entry to the inaugural parade route as to the security procedures they may expect to encounter at subsequent USSS-operated access control points. National Guard personnel performing this mission will not be armed.

In briefing me on your operational plans, you advised that you had coordinated with The Adjutants General of several states who had agreed to provide members of their respective National Guard forces to support the DCNG in the conduct of these civil support missions.

Please ensure that, as appropriate, members of the National Guard are appointed by Mayor Williams as "Special Police" pursuant to Section 5-129.03 of the DC Code.

Continue to coordinate closely your support plans and activities with the Deputy Chief of Staff for Operations, G-3, and the National Guard Bureau. Ensure unity of effort with the Joint Task Force-National Capital region. Please keep me fully informed.

Sincerely,

Francis J. Harvey

Enclosures
as

CF:
Office of the Assistant Secretary of Defense (Homeland Defense)
Office of the Department of Defense General Counsel
Department of Defense Executive Secretary

Office of the Deputy Attorney General
Washington, D.C. 20530

January 18, 2005

The Honorable Francis J. Harvey
Secretary of the Army
101 Army Pentagon, Room 3E560
Washington, D.C. 20310-0101

Dear Secretary Harvey:

This responds to your letter of January 13, 2005, asking whether it is appropriate under Executive Order No. 11485 of October 1, 1969, for the Secretary of the Army ("Secretary") to approve the use of the District of Columbia National Guard ("DCNG") to support the District of Columbia Metropolitan Police Department ("MPD") and District of Columbia Emergency Management Agency ("DCEMA") during the period of January 19-21, 2005, during the 55th Presidential Inaugural in Washington, D.C. I have reviewed your proposed assistance plan and have concluded that such assistance is legally permissible.

Mayor Anthony A. Williams's letter requesting assistance and resources asks that the D.C. National Guard provide 400 National Guard personnel to assist the MPD by providing the following: (1) personnel to man critical intersections along the Inaugural Parade route; (2) support to each of the seven districts within MPD; (3) liaison to the MPD's Synchronized Operations Command Complex and the DCEMA's Emergency Operations Center; (4) one Civil Support Team ("CST") and a response company to respond to events associated with disruption of inaugural activities; and (5) personnel and equipment to assist with snow removal along the parade route.[1]

We understand from your letter that the DCNG has determined that, within available resources, it is able to provide approximately 400 Army and Air DCNG personnel to (1) assist the MPD in manning critical intersections and traffic control points; (2) serve as a quick reaction force to support the MPD in responding to events causing disruption to inaugural activities; and (3) support the seven MPD districts to serve as liaisons to the MPD's Synchronized Operations Command Complex and the DCEMA's Emergency Operations Center. The Major General also intends to place a DCNG helicopter on alert during the inaugural parade for use if necessary to

[1] Letter to Major General David Wherley, Commanding General, District of Columbia National Guard, from Mayor Anthony A. Williams (December 20, 2004).

respond to an emergency involving danger to life. Finally, we understand that, as is customary, Mayor Williams will designate the assisting Guardsmen as "special police" under Section 5-129.03 of the District of Columbia Code.

Section 1 of Executive Order No. 11485 of October 1, 1969, provides that, "[s]ubject to the direction of the President as Commander-in-Chief, the Secretary [of Defense] may order out the National Guard under title 39 of the District of Columbia Code to aid the civil authorities of the District of Columbia."[2] Section 49-404 of the District of Columbia Code provides that the enrolled militia in the District of Columbia, of which the DCNG is a subset, may "aid the civil authorities in the execution of the laws or suppression of riots." D.C. Code Ann. § 49-404 (2004). We believe that this section of the District of Columbia Code authorizes the use of the DCNG for the purposes described above.

Sincerely,

James B. Comey

James B. Comey

[2] Subsequent to the issuance of Executive Order No. 11485, Title 39 of the District of Columbia Code, pertaining to the organized militia, was recodified as Title 49. *See* Title 49, D.C. Code Ann. (2004). We believe that the Executive Order continues to authorize the Secretary of Defense to order out the DCNG under the successor title.

SECRETARY OF THE ARMY
WASHINGTON

January 13, 2005

The Honorable James Comey
Deputy Attorney General of the United States
United States Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, District of Columbia 20530-0001

Dear Mr. Comey:

On December 21, 2004, Major General David Wherley, Jr., Commanding General of the National Guard of the District of Columbia (DCNG) transmitted a request from Mayor Anthony Williams (Enclosure 1) for support from the DCNG to the Metropolitan Police Department (DCMPD) and the District of Columbia Emergency Management Agency (DCEMA), for the period of January 19-20, 2005 during the 55th Presidential Inaugural. Major General Wherley has determined that within available resources, the DCNG can provide approximately 400 Army and Air DCNG personnel, with associated command and control, logistics, and administrative support elements to support the following missions:

a. assist the MPD in manning critical intersections and traffic control points;
b. serve as a quick reaction force to support the MPD in responding to events causing disruption to Inaugural activities; and
c. support the seven MPD districts and to serve as liaisons to the MPD's Synchronized Operations Command Complex and the DCEMA's Emergency Operations Center.

Mayor Williams also requested that the DCNG provide a Civil Support Team (CST) in support of the MPD and DCEMA. Major General Wherley advises that CST support is not yet within the capabilities of the DCNG. He has coordinated with The Adjutants General of the National Guards of the States of Maryland, Virginia, and West Virginia, all of whom have agreed to place their respective CSTs on standby in a Title 32 training status in their respective home states, and, if requested by Major General Wherley, to move those teams into the District of Columbia to assist the DCNG in supporting the MPD and DCEMA. Further, The Adjutant General of the West Virginia National Guard has agreed to place his Chemical, Biological, Radiological, Nuclear, and High Explosive (CBRNE) Enhanced Response Force Package (CERFP) on standby and to authorize its support to the DCNG under the same conditions.

Additionally, Major General Wherley has coordinated with The Adjutants General of the National Guards of the States of Maryland and West Virginia. Each has agreed to place a company-sized quick reaction force on standby in a Title 32 training status in their respective states during the Inaugural period. If requested by Major General Wherley, The Adjutants General will move those forces into the District of Columbia to assist the DCNG in supporting the MPD and DCEMA.

Although not specifically requested by Mayor Williams, Major General Wherley intends to place the DCNG helicopter on alert during the Inaugural period to facilitate an expeditious response should there occur an emergency involving danger to life.

In a separate request to the Department of Defense Executive Secretary, dated December 15, 2004, the United States Secret Service (USSS) requested National Guard support to USSS security operations at access control points along the Inaugural parade route (Enclosure 2). On January 11, 2005, the Deputy Secretary of Defense approved the USSS request for support, subject to coordination with the Attorney General (Enclosure 3). The approval letter expressly authorizes coordination with the National Guard forces of other states to assist the DCNG in supporting the USSS. Major General Wherley has coordinated with The Adjutant General of the National Guard of the State of Virginia, who has agreed to provide approximately 150 National Guard personnel, with associated command and control, logistics, and administrative support elements, to support the DCNG in this effort. The USSS has agreed to modify the scope of functions to be performed by National Guard personnel to comport with traditional military support policies. National Guard personnel supporting the USSS will report to the District of Columbia no later than January 18, 2005, to participate in planning and coordinating efforts and to complete USSS-provided training.

It is expected that all National Guard personnel, regardless of state of association, will serve in a Title 32 status while supporting the DCNG in providing support to the MPD, DCEMA, and the USSS for the Inaugural. Title 32 National Guard forces engaged in providing the support detailed above, regardless of state of association, will be employed as directed by the Commanding General, DCNG. All National Guard personnel, regardless of state of association, will provide support in accordance with the Rules for the Use of Force detailed in the Legal Annex to the DCNG Operations Order for the 2005 Presidential Inauguration (Enclosure 4), and other applicable law, regulation, and policy. As is customary, Mayor Williams is expected to designate all National Guard personnel providing support to the MPD, DCEMA, or USSS, regardless of state of association, as "Special Police" under Section 5-129.03 of the DC Code. I note that in the event of a disaster, emergency, or other event, and at the direction of appropriate authority, the status of National Guard personnel may be modified in accordance with applicable law, regulation, and policy.

I am prepared to approve these requests for support as set forth above, provided that you determine that this assistance is appropriate under Executive Order 11485.

My point of contact for this matter is Colonel Richard Townes, Chief, Military Support Division, Headquarters, Department of the Army, Office of the Deputy Chief of Staff, G3, at (703) 697-3203.

Sincerely,

Francis J. Harvey

Enclosures
as

CF:
Office of the Assistant Secretary of Defense for Homeland Defense
Office of the General Counsel of the Department of Defense
Department of Defense Executive Secretary

INTERVIEW WITH MAJOR GENERA
HECKMAN

THE BUFFALO NEWS

National/World

FOCUS: BASE CLOSINGS

Frequent call-ups are cited in proposal to shut Falls base

Repeated activation of reservists shows need to rebalance airlift fleet, general says

By JERRY ZREMSKI
News Washington Bureau
6/3/2005

File photo
Part of the reason for recommending closing the Niagara Falls Air Reserve Base was that not enough active duty forces fly the C-130 cargo planes.

WASHINGTON - The frequent call-ups of the Air Force reservists based in Niagara Falls played a role in the decision to recommend closing their home facility, a top Air Force general said Thursday.

Maj. Gen. Gary W. Heckman said repeated call-ups show that the Air Force has too many reservists and National Guard members flying C-130 cargo planes, and not enough active duty forces performing that task.

"We're working these guys (reservists) awfully hard," said Heckman, co-chairman of the panel that said the Niagara Falls base should be closed. "You have to ask if we're asking too much of our citizen airmen."

To correct that problem, the Pentagon looked to the base-closure process as a way to rebalance its airlift fleet, moving more cargo planes to active duty and suggesting the closure of several bases like the one in Niagara Falls, Heckman said.

In an interview at the Pentagon, Heckman and Brig. Gen. Hanferd J. Moen Jr., of the Office of Air Force Reserve, offered a detailed explanation of the recommendation to close the Niagara Falls base.

They also downplayed concerns raised by the base's supporters, who say the decision could hurt homeland security efforts and military recruiting in Western New York.

Heckman acknowledged that the Air Force had set a target date for closing the Niagara Falls base in 2009. That date could change, he added.

"I think Niagara has very good facilities,"

"You have to ask if we're asking too much of our citizen airmen."
Maj. Gen. Craig W. Hetrick

Heckman said.

But the generals indicated that good facilities are not enough to keep the base open in light of the Air Force's plan to concentrate many of its C-130 cargo planes at an active-duty base in Little Rock, Ark.

The Air Force currently has far too many small Guard and reserve bases like the one in Niagara Falls, scattering its airlift capacity across the country in a way that's inefficient, Heckman said.

By consolidating the cargo planes, the Air Force projects that it can save money by reducing maintenance staffs and allowing more pilots to fly each plane.

"If we're going to be good stewards of the taxpayers' money, we can't be putting these (planes) out in penny packets," Heckman said.

Location a factor

Nevertheless, the Pentagon recommended closing the Niagara Falls base even though it scored higher than other bases on the "Mission Compatibility Index" designed for the base closure process.

Heckman noted many of the lower-scoring bases that fly C-130s are National Guard bases.

"The Air Force Reserve is a bit more portable than the Air National Guard," Heckman explained, citing two reasons.

For one, Guard units often include much-needed "expeditionary combat support" operations, such as police, medical personnel and civil engineers, who frequently deploy with other forces. Secondly, Heckman said, Guard units perform both a federal and state function, making them harder to cut.

That did nothing to protect the Air National Guard's 107th Air Refueling Wing, which, like the Air Reserve's 914th Airlift Wing, is based at Niagara Falls. Under the base closure plan, the 107th would lose its KC-135 refueling tankers to a base in Bangor, Me.

The Bangor base scored lower than Niagara Falls in the Air Force's refueling ratings, but Heckman said other factors led to the decision to expand the Bangor facility.

Heckman said he believed that Niagara Falls' fuel-pumping capabilities didn't match those of the Bangor base or similar facilities in New Jersey and New Hampshire. In addition, the Bangor facility is the U.S. refueling base closest to Europe.

"Bangor's location did weigh in its favor," Heckman said. "But again, there was no one factor that you could really point to."

Good recruiting record

The recommendation to close the Niagara Falls base angered Maj. Gen. Thomas P. Maguire Jr., adjutant general of the New York National Guard, who said last week that the closing would leave the governor "hard-pressed to stage any kind of relief effort" in Western New

York in the event of a terrorist attack or even a major snowstorm.

But Heckman said the U.S. Northern Command, the Colorado-based command element that oversees homeland defense, had reviewed the base closure plan and was "quite satisfied with it."

The Northern Command - which oversees the joint U.S.-Canadian North American Aerospace Defense Command - agreed with the Air Force's assessment of how Niagara Falls ranked in terms of importance to homeland defense.

"With the combination of bases we have, there was not a compelling reason to keep Niagara open," Heckman said.

Heckman served as co-chairman of the Air Force's Base Closure Executive Group, which also considered the impact that base closures could have on military recruiting and retention.

He acknowledged that the Niagara Falls base has a strong recruiting record, but said that, too, was not enough to outweigh the other factors that called for the base to be closed.

"We are going to need fewer Guard and reserve C-130 folks," he said. "We're going to need more in other areas."

Options for reservists

While some of the full-time jobs at the Niagara Falls base would move to other facilities around the country, the Air Force doesn't know where the Niagara Falls reservists would end up serving out their tours of duty, said Moen, the top Air Force Reserve officer on the base closure group.

"The command right now is taking a look at all the various options, but we need to see what the final BRAC (base closure) commission does," Moen said.

Reservists might be able to join nearby units or transfer to the National Guard.

"Taking care of our people is going to be priority number one," Moen said.

As for National Guard members, their positions would follow their planes to Bangor.

"But we realize it would be an awful long commute," Heckman said, and that is why Guard personnel would likely be able to join other Guard units within New York State.

The generals also stressed that the decision to close the Niagara Falls base is now in the hands of the independent Base Realignment and Closure Commission, which will hold a hearing in Buffalo on June 27. The commission is scheduled to amend the Pentagon's base closure recommendations by Sept. 8.

Told of Maguire's complaint that state commanders were left out of the base closure process, Heckman said the commission will be sure to hear their views.

"People say well, gee, the politicians didn't get to play, the TAGS (adjutant generals) didn't get to play, and that's correct," he said. "That's by design, because the time they play is now."

Lawmakers complain

Politicians argue, however, that the Pentagon isn't playing fair. More than 40 members of Congress - including Rep. Thomas M. Reynolds, R-Clarence, and Louise M. Slaughter, D-Fairport - have signed a letter to Defense Secretary Donald H. Rumsfeld, complaining that the Pentagon is keeping much of its base closure data classified.

"Release of this data is required by law, and the continuing delay in its disclosure will increasingly undermine public faith in the transparency and fairness of DOD's decision-making process," the letter said.

In response, Heckman said the Pentagon was being careful for good reason.

"We're just making sure we're not releasing sensitive information," he said.

Heckman acknowledged he had never been to the Niagara Falls base, but he stressed that the base-closure process was a personal one for everyone involved. "We have great bases," he said. "We just have too many of them."

e-mail: jzremski@buffnews.com

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AIR FORCE RED TEAM POINT PAPER

18 April 2005

White Paper

Main Issues to Discuss:

- The BRAC Red Team believes the Air Force presentations give the perception that in many cases the Air Force is using BRAC only to move aircraft and gain MILCON funding rather than reducing excess infrastructure.
- Discussion within the Red Team has produced several potential routes to dispel such a perception and gain a more favorable reception for the Air Force package.

Causes of the Perception:

- Air Force goals for BRAC 2005 appear to focus on operational requirements rather than reduction of excess infrastructure capacity under the BRAC Law.
    - Military value analysis has uniquely been done by platform as opposed to by installation or supporting function—which results in multiple military values for the same installation and the need to override military value results.
    - Military capacity has been redefined to be the difference between current and optimum squadron sizes rather than functional support capabilities.
    - Proposals appear to use BRAC to determine where FYDP aircraft changes should be implemented and use BRAC funds to make the changes without including associated savings under BRAC.
    - Many of the aircraft changes are already reflected in the FYDP and any resulting savings have been taken.
        - BRAC actions should result in savings in installation and personnel costs.
        - As currently reflected, most Air Force actions do not result in savings and do not require the BRAC provisions.
- Proposals show personnel position savings while allegedly not reducing overall end strength.
- Even though number of aircraft is coming down, Expeditionary Combat Support (ECS) groups are left almost everywhere with no defined mission.
    - Perception supported by answers to questions: ECS groups are used to maintain "end strength" in search of missions.
- In many cases, military value is being overridden by Air Sovereignty Alert requirements, Active Reserve Component (ARC) mix, and recruiting demographics—need to show how these are tied to the Force Structure Plan and/or the Final Selection Criteria.

Potential Solutions:

- Given that each installation has multiple military value rankings, it is imperative that recommendations that are inconsistent with the ranking of installations for the platform in question be fully justified.
- The underlying rationales for the Air Force's method of determining military value and capacity (including optimal squadron sizes) need to be carefully articulated and well supported.
- If the moves are accomplished under BRAC, all savings and costs must be reflected under BRAC—other mission and personnel requirements should be paid for outside BRAC (can use BRAC savings).
- Provide better explanation of the role of Expeditionary Combat Support (ECS) units.
    - All savings must be part of BRAC—savings can then be applied to other missions.
    - Create a chart that shows:
        - what functions or MOSs ECSs cover,
        - how an ECS is allocated,
        - when they deploy,
        - what mission the ECS is charged with,
        - how ECSs support Homeland Defense,
        - and explains why DoD needs to have ECSs at numerous bases.
- Provide better explanation for need for Homeland Defense Air Sovereignty Alert (ASA) Facilities.
    - Explain what the ASA sites are and why BRAC is required to make changes—why are they a new mission?
    - Create a chart that lays out the requirements for coverage.
    - Ensure that NORTHCOM agrees with sites and are on the same page.
- Recommendations citing maintenance of ARC mix need to be supported by documentation that explains why the ARC mix is important and how maintaining the proper mix supports the Force Structure Plan and/or Final Selection Criteria.
- Recommendations citing more suitable recruiting demographics in one location over another need to be linked to a supporting document with recruiting data across all installations.
- Closing leased facilities could improve Air Force story—recommend including these facilities on your closure list. Plus, by doing so, you will be consistent with other Services since they are including leased facilitates on their closure lists.
- Justifications for Ellsworth AFB, SD and Grand Forks AFB, ND need to be stronger as these are closures in close proximity to each other with little other regional military presence. There also needs to be stronger rationales for other associated realignments.

INSTALLATION NET PRESENT
VALUE CHART

Candidate Recommendations Financials Summary
Sorted on Net Present Value (Highest to Lowest)

Candidate Recommendation	Description	Gross Savings/(Costs) $K	20 Yr NPV Savings/(Costs) $K	1-Time (Costs) $K	Annual Recurring Savings/(Costs) $K	Payback Years	Net Military Job Change	Net Civilian Job Change	Total Job Change	Status
S&S-0035	Consolidate / transfer Service Inventory Control Points to Defense Logistics Agency	2,992,004	2,898,817	(93,187)	226,565	0	(35)	(700)	(735)	Awaiting IEC Review
IND-0126	Establish Fleet Readiness Center (FRC) Mid-Atlantic at NAS Oceana, VA	1,988,024	1,966,971	(21,053)	131,595	0	(143)	(342)	(485)	Tentatively Recommended
H&SA-0006 V2	Army Personnel Center at FT Knox, KY	1,874,956	1,775,871	(99,085)	145,542	0	(697)	(517)	(1,214)	Tentatively Recommended
TECH-0018C	Relocate Missile Defense Agency Weapons/Arm RDAT&E at Redstone Arsenal, AL	1,885,795	1,741,983	(143,812)	155,619	1	(20)	(180)	(200)	Tentatively Recommended
DoN-0033	Close Subbase New London, CT	2,311,993	1,658,743	(653,250)	203,410	2	(888)	(489)	(1,377)	Tentatively Recommended
S&S-0048	Realign/Consol Wholesale Storage/Distribution at 4 sites	1,744,458	1,513,253	(231,205)	138,663	1	(9)	(791)	(800)	Tentatively Recommended
USAF-0117	Close Grand Forks AFB, ND; relocate KC-135 to numerous locations	1,646,186	1,457,237	(188,949)	145,048	0	(756)	(204)	(960)	Tentatively Recommended
IND-0123	Establish Fleet Readiness Center (FRC) East at MCAS Cherry Point, NC	1,467,177	1,431,227	(35,950)	98,286	0	0	(183)	(183)	Tentatively Recommended
E&T-0063 V2	Establish Maneuver Center at Ft Benning, GA; relocate Ft Knox, KY Armor School	2,069,325	1,392,254	(677,071)	160,551	3	(1,675)	(299)	(1,974)	Tentatively Recommended
USAF-0114 V2	Close Cannon AFB, NM; relocate AC / RC aircraft to various locations	1,435,272	1,332,643	(102,629)	118,993	0	(840)	(278)	(1,118)	Tentatively Recommended
IND-0125	Establish Fleet Readiness Center (FRC) SouthWest at NAS North Island, CA	1,378,801	1,329,693	(49,108)	96,575	0	(156)	(255)	(411)	Tentatively Recommended
USAF-0018 V2	Close Ellsworth AFB, SD	1,666,092	1,321,437	(344,655)	140,715	3	(973)	(253)	(1,226)	Tentatively Recommended
USAF-0122 V2	Close Pope AFB, NC	1,459,871	1,246,817	(213,054)	122,894	0	(1,172)	(123)	(1,295)	Tentatively Recommended
H&SA-0018 V2	Defense Finance and Accounting Service (DFAS) Consolidation	1,538,386	1,245,000	(293,386)	120,431	0	0	(1,294)	(1,294)	Tentatively Recommended
USA-0223 V2	Close Ft Monmouth, NJ	1,809,705	1,238,747	(570,958)	137,927	4	(179)	(324)	(503)	Tentatively Recommended
DoN 0133 V2	Close Portsmouth NS, ME Relocate workload to Norfolk Ns VA and Pearl Harb	1,639,491	1,200,248	(439,243)	127,302	3	TBD	TBD	TBD	Awaiting IEC Review
USAF-0056	Realign Eielson AFB, AK by inactivating 354th Wing relocate 18 A-10s,18 F-16	1,348,359	1,125,013	(223,346)	121,942	3	(904)	(212)	(1,116)	Awaiting IEC Review
E&T-0064 V2	Establish Combat Service Support Center at Ft Lee, VA, relocate Trans/QM School	1,976,338	1,104,272	(872,066)	152,573	5	(1,018)	(344)	(1,362)	Tentatively Recommended
H&SA-0114	Consolidate TRANSCOM components at Scott AFB, IL	1,128,685	1,079,460	(49,225)	84,094	0	(295)	(323)	(618)	Awaiting IEC Review
USA-0222	Close Ft McPherson, GA by relocating Forces Command HQs to Pope AFB and 3rd Army to Shaw AFB, SC	1,146,700	921,525	(225,175)	89,180	2	(285)	(553)	(838)	Tentatively Recommended
IND-0124	Establish Fleet Readiness Center (FRC) Southeast at NAS Jacksonville, FL	926,934	909,859	(17,075)	65,577	0	(152)	(199)	(351)	Tentatively Recommended
DoN-0138	Close NAS Brunswick, ME; relocate all squadrons to NAS Jacksonville, FL	1,029,841	843,997	(185,844)	94,848	1	(5)	0	(5)	Tentatively Recommended
IND-0108	Close Hawthorne Army Depot, NV	934,726	833,749	(100,977)	74,982	0	(74)	(45)	(119)	Tentatively Recommended
DoN-0084A	Close NAS Joint Reserve Base Willow Grove, PA	873,593	792,486	(81,107)	63,854	1	(39)	(2)	(41)	Tentatively Recommended
DoN-0032B	Close NS Ingleside, TX	955,412	777,025	(178,387)	74,760	2	(700)	(172)	(872)	Tentatively Recommended
IND-0118 V2	Close Pueblo Chemical Demilitarization Facility, CO	735,179	717,535	(17,644)	65,963	0	(167)	(244)	(411)	Tentatively Recommended
DoN-0068	Close NAS Atlanta, GA	750,770	701,367	(49,403)	53,900	0	(447)	(129)	(576)	Tentatively Recommended
USA-0036 V2	Close Red River Army Depot, TX	1,139,560	692,654	(446,906)	90,607	3	(8)	(655)	(663)	Awaiting IEC Review
H&SA-0106	Close 13 and realign 23 Leased Locations in the NCR to Walter Reed Army Medical Center, DC	941,363	691,562	(249,801)	78,000	3	0	39	39	Tentatively Recommended
IND-0120 V2	Close Umatilla Chemical Demilitarization Facility, OR	670,783	655,330	(15,453)	60,985	0	(127)	(385)	(512)	Tentatively Recommended
DoN-0002	Close NS Pascagoula, MS	662,300	651,141	(11,159)	47,179	0	(432)	(110)	(542)	Tentatively Recommended
H&SA-0010	Joint Base FT Lewis / McCord AFB, WA	641,047	634,798	(6,249)	46,578	0	(306)	(116)	(422)	Awaiting IEC Review
TECH-0040R	Co-locate Extramural Research program Managers to Anacostia Annex, DC	687,655	583,197	(104,458)	52,265	1	0	(51)	(51)	Tentatively Recommended
MED-0030	Close Uniform Services University of Healthcare Sciences, Bethesda, MD	613,400	574,679	(38,721)	58,091	1	(154)	(603)	(757)	Tentatively Recommended
E&T-0003 R V2	Disestablish Graduate level education at the Naval Postgraduate School, Monterey, CA, and Air Force Instititute of Technology, Wright-Patterson AFB, OH	610,441	561,336	(49,105)	47,447	1	(402)	(753)	(1,155)	Tentatively Recommended
E&T-0062 V2	Establish Aviation Logistics School at Ft Rucker, AL	1,007,275	538,040	(469,235)	78,062	6	(568)	(247)	(815)	Tentatively Recommended
USA-0136 V2	Close Carlisle Barracks, PA, move War College to FT Leavenworth, KS (E&T, O/W)	622,158	527,387	(94,771)	48,382	2	(255)	(230)	(485)	Tentatively Recommended
USA-0113	Close FT Monroe, VA	637,327	511,012	(126,315)	49,128	2	(256)	(165)	(421)	Tentatively Recommended
IND-0056	Realign NAVSHIPYD Portsmouth, ME; relocate depot functions to NAVSHIPYD Norfolk, VA	911,968	485,743	(426,225)	73,151	7	(102)	(565)	(667)	Tentatively Recommended
INTEL-0004	Consolidate NCR National Geospatial-Intelligence Agency at Engineering Proving Ground, Ft Belvoir , VA	1,578,100	460,906	(1,117,194)	127,805	8				Tentatively Recommended
DoN-0158A	Close NSA New Orleans, LA	609,778	460,072	(149,706)	50,467	1	TBD	TBD	TBD	Awaiting IEC Review

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MED-0002	Realign Walter Reed Medical Ctr, DC; relocate medical functions to Ft Belvoir, VA, and Bethesda, MD	1,299,533	435,716	(863,817)	99,847	9	0	(1,001)	(1,001)	Tentatively Recommended
IND-0119	Close Newport Chemical Demilitarization Facility, IN	432,602	425,546	(7,056)	36,199	0	(210)	(81)	(291)	Tentatively Recommended
E&T-0061 V2	Establish Net Fires Center at Ft Sill, OK by realigning Ft Bliss, OK; relocate ADA School	610,060	419,806	(190,254)	47,393	4	(507)	(38)	(545)	Tentatively Recommended
IND-0030	Close SIMA NRMF Ingleside, TX (relocate to SIMA San Diego, CA)	388,378	385,500	(2,878)	30,940	0	(332)	(7)	(339)	Tentatively Recommended
IND-0103	Establish Fleet Readiness Center (FRC) West at NAS Lemoore, CA	395,359	383,120	(12,239)	26,641	0	(50)	(118)	(168)	Tentatively Recommended
H&SA-0016	Joint Base NS Pearl Harbor / Hickam AFB, HI	382,623	376,335	(6,288)	28,266	0	(177)	(100)	(277)	Tentatively Recommended
TECH-0018D	Consolidate Weapons/Arm RDAT&E to China Lake, CA, Indian Head, MD, Dahlgren, VA	811,287	373,874	(437,413)	63,645	8	(46)	(467)	(513)	Awaiting IEC Review
USA-0121 V2	Close Ft Gillem, GA with Leaseback (Enclave for AAFES, GA NG)	449,839	362,606	(87,233)	34,181	2	(71)	(186)	(257)	Tentatively Recommended
TECH-0009A	Consolidate Defense Research labs at Hanscom AFB, MA, Kirtland AFB, NM, Wright-Patterson AFB, OH	742,222	349,013	(393,209)	57,893	7	(89)	(240)	(329)	Awaiting IEC Review
IND-0117 V3	Close Deseret Chemical Demilitarization Facility, UT	347,491	343,123	(4,368)	30,326	0	(186)	(62)	(248)	Tentatively Recommended
H&SA-0046	Relocate / Consolidate Defense Information Systems Agency to Offut AFB, NE	634,357	339,589	(294,768)	49,610	4	(5)	(50)	(55)	Tentatively Recommended
MED-0050	Disestablish inpatient mission at Keesler AFB, MS	314,842	307,018	(7,824)	23,080	0	0	(31)	(31)	Awaiting IEC Review
H&SA-0132 V2	Co-locate National Guard HQs (NGB,ANG,AFNG) at Andrews AFB, MD	358,234	294,851	(63,383)	29,230	2	(77)	(46)	(123)	Awaiting IEC Review
H&SA-0011	Joint Base McGuire AFB / Dix/NSA Lakehurst, NJ	302,000	290,716	(11,284)	22,341	0	(139)	(123)	(262)	Tentatively Recommended
USA-0167 V2	Close /Consolidate Army Reserve Centers USAR C2 Northeast	459,288	288,035	(171,253)	36,008	5	(239)	(126)	(365)	Tentatively Recommended
IND-0122 V2	Close Lone Star Army Ammunition Plant, TX	312,046	282,973	(29,073)	25,772	0	(2)	(18)	(20)	Tentatively Recommended
H&SA-0077	Consolidate/co-locate IMA and Army service providers to FT Lee, VA/Ft Sam Houston, TX	376,248	277,373	(98,875)	29,185	3	(18)	(217)	(235)	Tentatively Recommended
H&SA-0032 v2	Joint Base Charleston AFB/NWS Charleston, SC	272,500	267,375	(5,125)	21,873	0	(163)	(101)	(264)	Tentatively Recommended
USA-0063 V2	Close Selfridge Army Activities, MI (Enclave Bridging Lab/Water Purification Plant)	261,985	252,527	(9,458)	18,054	0	(12)	(132)	(144)	Tentatively Recommended
H&SA-0029	Consolidate 25 Civilian Personnel Centers Into 10 Regional DOD Civilian Personnel Centers	367,223	250,049	(117,174)	32,268	6	0	(85)	(85)	Awaiting IEC Review
H&SA-0015	Joint Base Elmendorf AFB / Ft Richardson, AK	257,207	249,540	(7,667)	19,036	0	(84)	(140)	(224)	Tentatively Recommended
IND-0019	Close SIMA Pascagoula, MS (relocate to NS Mayport, FL)	250,341	248,435	(1,906)	17,320	0	(53)	(42)	(95)	Tentatively Recommended
IND-0104	Establish Fleet Readiness Center (FRC) North West at NAS Whidbey Island, WA	426,720	243,636	(183,084)	28,500	3	(34)	(71)	(105)	Awaiting IEC Review
USA-0185	Close/Consolidate Army NG/RES Ctrs w/Navy Marine Corps Reserve Center at Camp Dodge, IA (JAST)	257,994	233,209	(24,785)	19,170	0	(217)	(1)	(218)	Tentatively Recommended
H&SA-0047	Consolidate Missile Defense Agency, DC and USA Space and Missile Defense Command at Redstone Arsenal, AL	532,685	228,749	(303,936)	35,673	5	0	81	81	Tentatively Recommended
USA-0243	Realign Ft Bragg, NC, and Ft McCoy, WI, by relocating a sustainment brigade and manuever enhancement brigade to Fort Knox, KY	364,405	224,361	(140,044)	25,938	3				Awaiting IEC Review
MED-0016	Realign Lackland AFB, TX relocate med functions to FT Sam Houston, TX	831,454	224,317	(607,137)	68,623	11	0	(722)	(722)	Tentatively Recommended
E&T-0058	Realign Carlisle Barracks, PA, by relocating Army War College to Ft Leavenworth, KY	266,370	220,390	(45,980)	19,627	2				Awaiting IEC Review
IND-0127A	Disestablish depot maintenance functions at MCLB Barstow, CA	257,927	215,257	(42,670)	19,675	1	0	(123)	(123)	Awaiting IEC Review
H&SA-0033	Joint Base Ft Eustis, VA/ Ft Monroe, VA/ Langley AFB, VA	220,167	213,839	(6,328)	16,322	0	(50)	(167)	(217)	Tentatively Recommended
H&SA-0131	Consolidate Counter Intel Field Activity & Defense Security Service at Quantico, VA	312,590	213,154	(99,436)	24,629	3	(3)	(44)	(47)	Tentatively Recommended
DoN-0062	Close Navy Recruiting District Indianapolis, IN; Omaha, NE; Buffalo, NY; Montgomery, AL; Kansas City, MO	210,205	207,761	(2,444)	14,529	0	(123)	(29)	(152)	Tentatively Recommended
H&SA-0017 v2	Joint Base Lackland / Ft Sam Houston / Randolph, TX	203,537	198,421	(5,116)	15,081	0	(68)	(121)	(189)	Tentatively Recommended
IND-0106 V2	Close Kansas Army Ammo Plant, KS	214,890	189,741	(25,149)	16,501	0	0	(8)	(8)	Tentatively Recommended
USAF-0011	Close Onizuka AFS, CA	302,050	185,514	(116,536)	24,103	5	21	(132)	(111)	Tentatively Recommended
IND-0113 V2	Realign Sierra Army Depot, CA	195,919	183,278	(12,641)	14,026	0	0	0	0	Tentatively Recommended
H&SA-0134	Co-locate Misc. USN Leased Locations to Arlington Service Center, VA	211,847	161,184	(50,663)	17,554	1	0	0	0	Tentatively Recommended
MED-0017	Realign Pope AFB, NC by relocating all Medical functions to Ft Bragg, NC	159,750	154,011	(5,739)	11,797	0	0	(148)	(148)	Tentatively Recommended
MED-0022	Realign McCord AFB, WA by relocating all Medical functions to Ft Lewis, WA	144,184	142,208	(1,976)	10,467	0	0	(48)	(48)	Tentatively Recommended
H&SA-0013 v2	Joint Base Anacostia/Bolling AFB / NRL, DC	143,612	140,721	(2,891)	10,610	0	(64)	(55)	(119)	Tentatively Recommended

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TECH-0042C	Consolidate Air and Space C4ISR RDAT&E at Hanscom AFB, MA and Edwards AFB, CA	188,138	137,035	(51,103)	13,118	4	(52)	(201)	(253)	Awaiting IEC Review
USA-0200 V2	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Madison, WI (JAST)	145,491	134,780	(10,711)	10,807	0	(124)	(1)	(125)	Tentatively Recommended
H&SA-0127	Consolidate Anderson AFB and COMNAVMARIANNAS (Guam)	133,431	131,403	(2,028)	9,837	0	(64)	(31)	(95)	Tentatively Recommended
E&T-0046	Consolidate DoD Undergraduate Rotary at Ft Rucker, AL and Fixed at Various Locations	530,814	130,984	(399,830)	35,313	10	(188)	(105)	(293)	Awaiting IEC Review
H&SA-0069	Realign 15 Army leased locations in N VA to Ft Belvoir, VA	277,385	130,501	(146,884)	21,583	8	0	78	78	Tentatively Recommended
USA-0021	Close/Consolidate Guard Readiness Centers at Armed Forces Reserve Center Oklahoma City, OK	140,490	112,298	(28,192)	10,416	2	(99)	(6)	(105)	Tentatively Recommended
S&S-0043	Privatize wholesale supply, storage, and distribution for all Tires	114,378	110,857	(3,521)	8,370	0	0	(61)	(61)	Tentatively Recommended
USAF-0099 V2	Realign Lackland AFB, TX; relocate STAMP/STRAPP functions to McConnell AFB, KS	121,470	108,879	(12,591)	8,924	1	(99)	0	(99)	Tentatively Recommended
USA-0102	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center San Marcos, TX	122,552	108,707	(13,845)	9,093	1	(106)	0	(106)	Tentatively Recommended
H&SA-0009 v2	Joint Base FT Bragg / Pope AFB, NC	100,164	99,132	(1,032)	7,414	0	(70)	(14)	(84)	Tentatively Recommended
IND-0024	Realign SIMA Norfolk, VA (relocate to NAVSHIPYD Norfolk, VA)	99,063	96,626	(2,437)	7,371	0	(190)	(1)	(191)	Tentatively Recommended
USA-0227 V2	Close Soldier System Center Natick, MA	410,593	95,086	(315,507)	35,073	11	(37)	(411)	(448)	Awaiting IEC Review
MED-0053	Disestablish inpatient mission at NS Great Lakes, IL	95,732	92,640	(3,092)	6,110	0	0	(115)	(115)	Tentatively Recommended
USA-0107	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Fairmont, WV	101,989	92,479	(9,510)	7,575	0	(88)	0	(88)	Tentatively Recommended
H&SA-0075	Joint Base Ft Monmouth / Earle Colts Neck, NJ	92,246	90,653	(1,593)	6,840	0	(48)	(27)	(75)	Tentatively Recommended
IND-0112 V2	Close River Bank Army Ammunition Plant, CA	115,209	89,970	(25,239)	9,184	0	0	(4)	(4)	Tentatively Recommended
USA-0099	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Seagoville, TX	104,157	88,652	(15,505)	7,722	1	(90)	0	(90)	Tentatively Recommended
USAF-0121 V2	Close Niagara Falls ARS, NY; KC-135 to Bangor AGS, ME, C130 to Little Rock AFB, AR	178,887	88,068	(90,819)	13,426	6	0	0	0	Tentatively Recommended
IND-0037	Relocate Intermediate sub repair function New London, CT to SIMA NS Norfolk, VA	128,139	87,575	(40,564)	14,901	5	(94)	0	(94)	Tentatively Recommended
IND-0110 V2	Close Mississippi Army Ammunition Plant, MS	120,882	87,457	(33,425)	8,575	4	0	(3)	(3)	Tentatively Recommended
S&S-0044	Privatize wholesale supply, storage, and distribution for all Packaged POL	89,596	86,768	(2,828)	6,443	0	0	(57)	(57)	Tentatively Recommended
TECH-0060	Close NSWC Corona and relocate to march AFB CA	179,451	85,169	(94,282)	13,482	6				Awaiting IEC Review
DoN-0041	Realign Commander Navy Regions Gulf Coast, South, Northeast	91,035	84,622	(6,413)	6,532	0	(12)	(80)	(92)	Tentatively Recommended
H&SA-0124 V2	Relocate FORSCOM HQ to Pope AFB, NC	176,247	83,734	(92,513)	15,261	7	(50)	(125)	(175)	Tentatively Recommended
H&SA-0065	Consolidate Army Test & Evaluation Cmd HQs	92,767	81,716	(11,051)	7,270	1	(12)	(32)	(44)	Tentatively Recommended
H&SA-0071	Create new Agency for Media and Publications at Ft Meade, MD	124,270	81,399	(42,871)	9,347	4	(22)	(9)	(31)	Tentatively Recommended
USAF-0044	Close Otis ANGB, MA (Enclave ECS and Comms elements)	118,670	81,357	(37,313)	9,097	4	0	0	0	Tentatively Recommended
H&SA-0057	Relocate TRADOC HQ to Ft Eustis, VA	157,128	78,806	(78,322)	13,954	6	(57)	(129)	(186)	Tentatively Recommended
USAF-0102	Consolidate USAF Logistics Support Centers at Langley AFB, VA & Scott AFB, IL	80,788	70,721	(10,067)	5,521	0	(53)	(2)	(55)	Tentatively Recommended
IND-0111 V3	Close Red River Munitions Center, TX	181,897	68,256	(113,641)	14,885	7	0	(124)	(124)	Tentatively Recommended
USA-0216	Close/Consol Army Guard and Reserve Centers at Armed Forces Reserve Center Jefferson Barracks, MO	87,554	67,168	(20,386)	6,470	1	(67)	0	(67)	Tentatively Recommended
USA-0213	Close/Consol Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center NAS JRB Ft Worth,T X(JAST)	86,758	66,227	(20,531)	6,417	2	(76)	0	(76)	Tentatively Recommended
TECH-0018E	Realign Patrick AFB, FL by relocating Navy Strategic T&E at NSB Kings Bay, GA	151,971	65,529	(86,442)	14,187	7	(51)	(40)	(91)	Tentatively Recommended
H&SA-0007 v3	Navy Personnel Center at NSA Millington, TN	77,130	63,638	(13,492)	6,785	2	(62)	(12)	(74)	Tentatively Recommended
USA-0147	Close/Consolidate Army Guard / Reserve Center at Armed Forces Reserve Center Ft Bliss, TX	119,875	62,594	(57,281)	8,790	6	(106)	0	(106)	Tentatively Recommended
USAF-0049	Close W.K. Kellogg APT AGS, MI	71,463	62,579	(8,884)	5,111	1	0	0	0	Tentatively Recommended
USA-0166 V2	Close /Consolidate Army Reserve Centers USAR C2 Northwest	140,782	60,388	(80,394)	11,091	9	(86)	(89)	(175)	Tentatively Recommended
MED-0018	Disestablish inpatient care at Andrews AFB, MD	64,663	58,943	(5,720)	5,193	2	0	(160)	(160)	Tentatively Recommended
USA-0141	Close/Consolidate Army Guard/Reserve with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Bell, CA (JAST)	96,570	58,625	(37,945)	7,152	5	(72)	0	(72)	Tentatively Recommended
USA-0054	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Marana, AZ	73,055	58,211	(14,844)	5,409	2	(60)	0	(60)	Tentatively Recommended

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DoN-0154 (combine	Relocate Navy Crane Center Lester, PA to Norfolk Naval Shipyard, VA	72,702	57,475	(15,227)	5,832	3	(855)	(358)	(1,013)	Tentatively Recommended
DoN-0078	Consolidate Navy Reserve Readiness Command South, Fort Worth, TX with Navy Reserve Readiness Command Midwest Great Lakes, IL	57,482	56,832	(650)	3,978	0	(3)	(32)	(35)	Tentatively Recommended
E&T-0004A	Close Naval Supply School, Athens GA. Relocate to Naval Station Newport, RI	79,837	56,821	(23,016)	6,565	3				Awaiting IEC Review
MED-0029	Realign Walter Reed Army Medical Center, DC by disestablishing the Armed Forces Inst of Pathology	139,346	56,004	(83,342)	9,792	7	0	0	0	Awaiting IEC Review
USAF-0112	Close Richmond AGS, Sandston, VA	68,451	50,725	(17,726)	4,444	0	0	0	0	Tentatively Recommended
H&SA-0119	Joint Base Dobbins AFB / NAS Atlanta, GA	51,548	50,300	(1,248)	3,803	0	(25)	(20)	(45)	Tentatively Recommended
INTEL-0010	Co-locate select DIA functions to Rivanna Station, Charlottesville, VA	145,734	48,987	(96,747)	10,099	9				Tentatively Recommended
H&SA-0115	Co-locate MILDEP and DOD Medical activities at NNMC Bethesda, MD	98,825	47,351	(51,474)	7,955	6	0	8	8	Tentatively Recommended
USA-0022	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Grand Prairie, TX	60,520	40,369	(20,151)	4,472	4	(47)	0	(47)	Tentatively Recommended
E&T-0029 V2	Relocate Army Prime Power School to Ft Leonard Wood, MO	50,315	40,084	(10,231)	3,609	3	0	0	0	Tentatively Recommended
MED-0012	Realign USAF Aerospace Medical Training at Wright-Patterson AFB, OH	89,910	39,256	(50,654)	7,285	8	0	0	0	Tentatively Recommended
DoN-0156	Consolidate NAVRESREDCOM NE & Mid-Atlantic w/COMNAVREG	40,623	38,640	(1,983)	3,000	1	(24)	(9)	(33)	Tentatively Recommended
H&SA-0133	Establish 4 Joint Mob Site at McGuire AFB, NJ, Ft Lewis, WA, Ft Bliss, GA, Ft Bragg, NC	37,169	36,987	(182)	706	0	(1)	0	(1)	Tentatively Recommended
USAF-0037	Close Great Falls Intl Airport AGS, MT	61,147	36,591	(24,556)	4,266	6	0	0	0	Tentatively Recommended
IND-0127B	Realign Red River relocate maint functions to Anniston, AL, Tobyhanna, PA, MCLB Albany, GA	283,266	34,894	(248,392)	17,723	13	0	(215)	(215)	Awaiting IEC Review
DoN-0157	Close Navy Marine Corps Reserve Center Kansas City, KS	53,309	34,500	(18,809)	4,292	3	TBD	TBD	TBD	Awaiting IEC Review
H&SA-0128	Realign Ft McPherson, GA by relocating Army Reserve Command to Pope AFB, NC	95,991	34,101	(61,890)	7,844	8	4	(72)	(68)	Tentatively Recommended
TECH-0058	Realign Brooks City Base, TX Human Systems D&A to Wright-Patterson AFB, OH	48,147	33,946	(14,201)	3,883	4	(8)	(13)	(21)	Tentatively Recommended
H&SA-0041	Relocate Navy Reserve Command to NSA Norfolk, VA	57,059	33,324	(23,735)	4,205	3	(22)	0	(22)	Tentatively Recommended
USAF-0118	Realign McGuire AFB, NJ; inactivate 108th air refuel wing (Enclave ECS elements)	33,251	29,802	(3,449)	2,547	2	0	0	0	Tentatively Recommended
USA-0055	Close/Consolidate Reserve and guard Centers at Armed Forces Reserve Center Pine Bluff Arsenal, AR	38,316	29,079	(9,237)	2,835	3	(30)	(4)	(34)	Tentatively Recommended
TECH-0018B	Consolidate Weapons/Arm (Guns/Ammo) at Picatinny Arsenal, NJ; realign various sites	148,688	28,397	(120,291)	11,627	13	(1)	(120)	(121)	Tentatively Recommended
USAF-0066	Close Mansfield Lahm MAP AGS, OH	56,297	28,249	(28,048)	3,584	4	0	0	0	Tentatively Recommended
DoN-0049	Close Navy Reserve Center Forest Park, IL	28,319	28,149	(170)	1,939	0	(14)	0	(14)	Tentatively Recommended
USA-0030	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Hastings, NE	38,045	27,326	(10,719)	2,818	3	(31)	0	(31)	Tentatively Recommended
USA-0215 V2	Close/Consol Army Reserve Ctrs with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Kirtland AFB, NM (JAST)	41,592	26,974	(14,618)	3,069	4	(35)	(1)	(36)	Tentatively Recommended
USA-0023	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center McAlester, OK	37,592	26,786	(10,806)	2,785	3	(30)	0	(30)	Tentatively Recommended
H&SA-0034	Joint Base Ft Story, VA / Naval Mid-Atlantic Region, VA	26,945	26,647	(298)	1,998	0	(18)	(3)	(21)	Tentatively Recommended
S&S-0045	Privatize wholesale supply, storage, and distribution for all Compressed Gases	27,744	26,588	(1,156)	2,045	0	0	(13)	(13)	Tentatively Recommended
USAF-0123	Close Pittsburgh Intl Airport ARS, PA; C-130s to Little Rock AFB, AR, ECS to Youngstown ARS, PA	88,599	26,308	(62,291)	6,493	10	0	0	0	Tentatively Recommended
IND-0086	Disestablish Lackland AFB, TX Depot by relocating functions to Tobyhanna AD, PA	36,010	26,289	(9,721)	2,859	3	0	(38)	(38)	Tentatively Recommended
USA-0110	Close /Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Columbus, NE	33,229	25,345	(7,884)	2,455	2	(31)	0	(31)	Tentatively Recommended
USA-0076 V2	Close/Consolidate Reserve and Guard Centers At Armed Forces Reserve Center Camden, NJ	40,441	25,306	(15,135)	2,986	5	(34)	(1)	(35)	Tentatively Recommended
DoN-0019	Close Navy Reserve Center Adelphi, MD	24,976	24,812	(164)	1,726	0	(16)	0	(18)	Tentatively Recommended
USA-0083	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Carbondale, IL	39,693	23,161	(16,532)	2,931	5	(32)	0	(32)	Tentatively Recommended
USAF-0035	Close Duluth Intl Airport AGS, MN (Enclave ECS element)	27,477	22,713	(4,764)	2,121	3	0	0	0	Tentatively Recommended

Candidate Recommendations - Financials Summary
Sorted on Net Present Value (Highest to Lowest)

Candidate Recommendation	Description	Gross Savings/(Costs) $K	20 Yr NPV Savings/(Costs) $K	1-Time (Costs) $K	Annual Recurring Savings/(Costs) $K	Payback Years	Net Military Job Change	Net Civilian Job Change	Total Job Change	Status
USA-0214	Close/Consol Army Guard Ctrs with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Broken Arrow, OK (JAST)	66,262	21,258	(45,004)	4,845	10	(47)	(5)	(52)	Tentatively Recommended
DoN-0085	Relocate OTC Pensacola, FL to NS Newport, RI	24,438	21,220	(3,218)	1,671	2	(232)	(318)	(550)	Tentatively Recommended
IND-0115 V2	Realign Lima Tank Plant, OH by disestablishing the tank manufacturing function	21,683	20,941	(742)	1,727	1	0	0	0	Tentatively Recommended
TECH-0020	Joint Meteorology & Oceanography ctr at Stennis Sp ctr, MS (Close NRL Det. Monterey, CA)	33,427	20,734	(12,693)	2,296	6	0	(22)	(22)	Awaiting IEC Review
USA-0080	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Tuscaloosa, AL	34,331	20,646	(13,685)	2,517	5	(26)	(2)	(28)	Tentatively Recommended
DoN-0074 A	Consolidate Naval Facilities (NAVFAC) Engineering Field Division (EFD) South, Charleston, SC South with NAVFAC Engineering Facilities Activity (EFA) Southeast, Jacksonville, FL, NAVFAC Midwest, Great Lakes, IL and NAVFAC Atlantic, Norfolk, VA	45,465	20,417	(25,048)	3,673	8	(2)	(48)	(50)	Tentatively Recommended
H&SA-0099	Co-locate Adjudication Activities at Ft Meade, MD	84,151	20,397	(63,754)	6,384	11	(9)	(56)	(65)	Tentatively Recommended
MED-0004a	Disestablish inpatient mission at MCAS Cherry Point, NC	21,529	20,065	(1,464)	1,629	1	0	(38)	(38)	Tentatively Recommended
DoN-0052	Close Navy Reserve Center Orange, TX	20,238	19,910	(328)	1,404	0	(12)	0	(12)	Tentatively Recommended
H&SA-0012 v2	Joint Base Andrews AFB / Washington, MD	20,165	19,670	(495)	1,495	0	(9)	(9)	(18)	Tentatively Recommended
H&SA-0130	Realign NAS Pensacola, FL; relocate NETC & NETPDTC to NSA Millington, TN	44,449	17,524	(26,925)	3,596	9	(11)	(33)	(44)	Tentatively Recommended
USA-0140	Close/Consolidate Army Guard /Reserve with Marine Corps Reserve Center at Armed Forces Reserve Center Mobile, AL (JAST)	28,202	17,284	(10,918)	2,080	5	(21)	(1)	(22)	Tentatively Recommended
TECH-0047	Consolidate Combatant Commander C4SIR to Peterson AFB, CO	31,161	17,278	(13,883)	2,078	5	(16)	(35)	(51)	Tentatively Recommended
USA-0075	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Paducah, KY	35,470	16,960	(16,510)	2,608	7	(31)	0	(31)	Tentatively Recommended
H&SA-0014	Joint Base Ft Myer / Henderson Hall, VA	16,907	16,426	(481)	1,228	0	(11)	(2)	(13)	Tentatively Recommended
TECH-0013	Consolidate Joint Ground Vehicle D&A at Detroit Arsenal, MI	20,187	16,420	(3,767)	1,930	2	(1)	(7)	(8)	Tentatively Recommended
TECH-0018A	Establish Weapons/Arm RDAT&E Ctr at Eglin AFB, FL by realigning Hill AFB, UT and FT Belvoir, VA	19,002	16,215	(2,787)	1,456	2	(5)	(10)	(15)	Tentatively Recommended
DoN-0053	Close Navy Marine Corps Reserve Center Tacoma, WA	16,263	16,121	(142)	1,127	0	(8)	0	(8)	Tentatively Recommended
IND-0095	Realign NAVSHIPYD Puget Sound, WA Det Boston MA	22,988	15,827	(7,161)	1,206	2	0	(2)	(2)	Tentatively Recommended
DoN-0115	Close Navy Marine Corps Reserve Center Madison, WI, Navy Reserve Center Lacrosse, IA, Dubuque, IA; relocate to Armed Forces Reserve Center Madison, WI (JAST)	25,819	15,666	(10,153)	1,998	5	0	0	0	Tentatively Recommended
USA-0006 V2	Relocate West Point Prep school from FT Monmouth, NJ to West Point, NY	44,016	15,279	(28,737)	3,225	10	(13)	(11)	(24)	Tentatively Recommended
TECH-0006	Establish Ctr for Fixed Wing Air Platform RDAT&E by realigning numerous sites	83,953	15,261	(68,692)	6,496	22	(6)	(52)	(58)	Awaiting IEC Review
IND-0083B	Disestablish Depot Maintenance functions at NAVWPNSTA Seal Beach, CA	19,820	14,485	(5,335)	1,520	2	0	(6)	(6)	Tentatively Recommended
USA-0172	Close/Consol Army Guard and Reserve centers at Armed Forces Reserve Center Blue Grass Depot, KY	21,048	14,214	(6,834)	1,561	4	(16)	(2)	(18)	Tentatively Recommended
MED-0049	Disestablish inpatient mission at MacDill AFB, FL	14,815	14,185	(630)	1,103	1	0	(18)	(18)	Tentatively Recommended
TECH-0054	Consolidate Navy C4ISR RDAT&E at NAWC China Lake, CA.. Close Wpns Div Pt Mugu, CA	86,549	13,796	(72,753)	6,687	13	0	0	0	Tentatively Recommended
DoN-0054	Close Navy Marine Corps Reserve Center Encino, CA	13,758	13,647	(111)	947	0	(2)	0	(2)	Tentatively Recommended
DoN-0020	Close Navy Reserve Center Duluth, MN	12,693	12,628	(65)	878	0	(7)	0	(7)	Tentatively Recommended
DoN-0025	Close Navy Marine Corps Reserve Center Moundsville, WV	12,767	12,528	(239)	883	0	(7)	0	(7)	Tentatively Recommended
H&SA-0109	Realign lease space by consolidating Defense Commissary Agency at FT Lee, VA	50,565	12,125	(38,440)	3,955	11	(2)	(58)	(60)	Tentatively Recommended
DoN-0113	Close Navy Marine Corps Reserve Center Akron, OH, Navy Reserve Center Cleveland, OH; relocate to Armed Forces Reserve Center Akron, OH (JAST)	23,736	12,032	(11,704)	1,770	7	0	0	0	Tentatively Recommended
DoN-0043	Close Navy Reserve Center Glens Falls, NY	11,891	11,850	(41)	824	0	(7)	0	(7)	Tentatively Recommended
E&T-0014 V4	Establish Joint Center for Religious Training and Education at FT Jackson, SC	12,549	11,570	(979)	845	1	(3)	0	(3)	Tentatively Recommended
DoN-0050	Close Navy Reserve Center St Petersburg, FL	11,568	11,473	(95)	792	0	(4)	0	(4)	Tentatively Recommended

Candidate Recommendati[illegible] Financials Summary

Sorted on Net Present Value (Highest to Lowest)

Candidate Recommendation	Description	Gross Savings/(Costs) $K	20 Yr NPV Savings/(Costs) $K	1-Time (Costs) $K	Annual Recurring Savings/(Costs) $K	Payback Years	Net Military Job Change	Net Civilian Job Change	Total Job Change	Status
USA-0088	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Kirksville, MO	19,921	11,126	(8,795)	1,505	6	(10)	(1)	(11)	Tentatively Recommended
USA-0093	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Muskogee, OK	22,297	11,096	(11,201)	1,647	7	(14)	(2)	(16)	Tentatively Recommended
DoN-0011	Close Navy Reserve Center Tuscaloosa, AL	11,099	11,053	(46)	765	0	(7)	0	(7)	Tentatively Recommended
TECH-0045	Establish Army Soldier & Biological Chemical Center at APG, MD (Close Natick, MA)	345,118	10,904	(334,214)	29,323	15	(38)	(372)	(410)	Tentatively Recommended
USA-0195	Close/Consolidate Army Guard and Reserve centers at Birmingham AGS, AL	34,301	10,693	(23,608)	2,514	10	(28)	0	(28)	Tentatively Recommended
USAF-0039	Close Hector Intl Airport AGS, ND (Enclave ECS element)	14,684	10,649	(4,035)	1,006	3	0	0	0	Tentatively Recommended
DoN-0089A	Close Navy Marine Corps Reserve Center Los Angeles relocate to Armed Forces Reserve Center Bell,CA (JAST)	22,650	10,473	(12,177)	1,705	8	(11)	(4)	(15)	Tentatively Recommended
USAF-0040	Close Hulman APT AGS, IN (Enclave ECS element)	16,128	10,253	(5,875)	1,102	5	0	0	0	Tentatively Recommended
DoN-0118	Close Navy Marine Corps Reserve Center Baton Rouge, LA; relocate to Armed Forces Reserve Center Baton Rouge, LA (JAST)	14,221	10,230	(3,991)	1,014	3	(9)	0	(9)	Tentatively Recommended
USA-0087	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Cape Girardeau, MO	38,479	10,207	(28,272)	2,822	11	(30)	(2)	(32)	Tentatively Recommended
TECH-0009B	Consolidate Defense Research labs at Aberdeen Proving Ground, Adelphi, MD	37,286	10,167	(27,119)	2,907	9	(2)	(48)	(50)	Tentatively Recommended
MED-0004b	Disestablish inpatient mission at Ft Eustis, VA	11,258	10,113	(1,145)	883	2	0	(34)	(34)	Tentatively Recommended
DoN-0048	Close Navy Reserve Center Lubbock, TX	9,715	9,638	(77)	669	0	(5)	0	(5)	Tentatively Recommended
DoN-0022	Close Navy Reserve Center Lincoln, NE	9,514	9,330	(184)	653	0	(5)	0	(5)	Tentatively Recommended
USA-0074	Close/Consolidate Army Reserve center with Armed Forces Reserve Center Kearney, NE	10,057	8,980	(1,077)	748	1	(6)	0	(6)	Tentatively Recommended
IND-0083A	Realign Rock Island Arsenal, IL; relocate Depot Maint to Anniston, AL/Letterkenny, PA depots	37,742	8,706	(29,036)	2,920	11	0	(33)	(33)	Tentatively Recommended
MED-0052	Disestablish inpatient mission at Scott AFB, IL	11,325	8,555	(2,770)	981	5	0	(77)	(77)	Tentatively Recommended
DoN-0012	Close Navy Reserve Center Pocatello, ID	8,457	8,420	(37)	585	0	(6)	0	(6)	Tentatively Recommended
TECH-0032	Consolidate Chem / Bio Research Development & Acquisition at Ft Detrick, APG, MD	84,092	8,347	(75,745)	6,303	15	(12)	(74)	(86)	Tentatively Recommended
DoN-0024	Close Navy Reserve Center Sioux City, IA	8,278	8,224	(54)	572	0	(5)	0	(5)	Tentatively Recommended
MED-0054	Disestablish inpatient mission at Ft Knox, KY	11,552	8,214	(3,338)	67	0	0	(84)	(84)	Tentatively Recommended
DoN-0055	Close Navy Marine Corps Reserve Center Grissom Air Reserve Base, IN	8,273	8,197	(76)	570	0	(5)	0	(5)	Tentatively Recommended
USAF-0105	Establish F-15 Avionics Centralized Intermediate Repair Facility at Tyndall AFB, FL	9,711	8,052	(1,659)	714	2	(8)	0	(8)	Awaiting IEC Review
DoN-0009	Close Navy Reserve Center Asheville, NC	7,829	7,791	(38)	538	0	(2)	0	(2)	Tentatively Recommended
DoN-0018	Close Navy Reserve Center Evansville, IN	7,775	7,714	(61)	536	0	(4)	0	(4)	Tentatively Recommended
DoN-0010	Close Navy Reserve Center Cedar Rapids, IA	7,703	7,651	(52)	532	0	(5)	0	(5)	Tentatively Recommended
DoN-0016	Close Navy Reserve Center Central Point, OR	7,490	7,446	(44)	517	0	(5)	0	(5)	Tentatively Recommended
E&T-0012 V2	Relocate Defense Resource Management Institute (under DAU) to Ft Belvoir, VA	10,087	6,824	(3,263)	705	4	0	0	0	Tentatively Recommended
DoN-0023	Close Navy Reserve Center Marquette, MI	6,793	6,744	(49)	468	0	(4)	0	(4)	Tentatively Recommended
DoN-0021	Close Navy Reserve Center Lexington, KY	6,438	6,382	(56)	445	0	(5)	0	(5)	Tentatively Recommended
DoN-0015	Close Navy Reserve Center Horseheads, NY	6,000	5,949	(51)	413	0	(2)	0	(2)	Tentatively Recommended
E&T-0016	Establish Joint Center for Culinary Training at Ft Lee, VA	10,564	5,687	(4,877)	711	5	(6)	0	(6)	Tentatively Recommended
DoN-0047	Close Navy Reserve Center Watertown, NY	5,698	5,621	(77)	392	0	(4)	0	(4)	Tentatively Recommended
DoN-0057	Close Inspector-Instructor Staff West Trenton, NJ	6,863	5,614	(1,249)	471	2	0	0	0	Tentatively Recommended
H&SA-0067 v2	Relocate Defense Contract Mngt Agency to Ft Lee, VA	50,431	5,564	(44,867)	3,865	13	0	0	0	Tentatively Recommended
USA-0153	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Baton Rogue, LA (JAST)	19,106	4,903	(14,203)	1,393	12	(12)	0	(12)	Tentatively Recommended
DoN-0120	Close Navy Marine Corps Reserve Center Lehigh Valley& Reading, PA to Armed Forces Reserve Center Allentown-Bethlehem, PA (JAST)	15,348	4,602	(10,746)	1,134	11	(7)	0	(7)	Tentatively Recommended
IND-0097	Realign NNSY Det NAVSHIPSO Phila PA to Norfolk SHPYD, VA	6,271	4,149	(4,122)	619	7	0	0	0	Tentatively Recommended
USAF-0106	Establish F-100 engine Centralized Intermediate Repair Facility at NAS New Orleans, LA	13,541	3,706	(9,835)	962	12	(8)	0	(8)	Tentatively Recommended
USAF-0053	Realign Luke, AFB relocate F-16 to Fresno Air Terminal AGS,CA	13,664	3,681	(9,983)	554	8	0	0	0	Tentatively Recommended

Candidate Recommendation Financials Summary
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IND-0114 V3	Realign Watervliet Arsenal, NY disestablish all capabilities for other FA Components	67,132	3,430	(63,702)	5,168	18	0	0	0	Tentatively Recommended
DoN-0114	Close Navy Marine Corps Reserve Center Milwaukee, WI and relocate to Armed Forces Reserve Center Milwaukee, WI (JAST)	7,825	2,605	(5,220)	593	10	(13)	0	(13)	Awaiting IEC Review
E&T-0053	Consolidate Transportation Mgnt Training at Ft Lee, VA	3,321	2,446	(875)	239	4	(4)	(11)	(15)	Tentatively Recommended
USA-0024	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Lewisburg, PA	24,789	2,039	(22,750)	1,806	15	(20)	(2)	(22)	Tentatively Recommended
TECH-0005	Establish Ctr for Rotary Wing Air Platform RDAT&E by realigning numerous sites	103,281	2,028	(101,253)	7,863	20	(6)	(99)	(105)	Awaiting IEC Review
USAF-0077 V2	Realign Key Field AGS, MS by relocating KC-135R aircraft (Enclave ECS element)	12,848	2,026	(10,822)	882	13	0	0	0	Tentatively Recommended
H&SA-0141	Relocate AF Real Property Agency & Ctr Environ Excellence to Lackland AFB, TX	18,873	1,971	(16,902)	1,574	14	0	2	2	Awaiting IEC Review
DoN-0056	Close Inspector-Instructor Staff Rome, GA	2,012	1,961	(51)	156	0	0	0	0	Tentatively Recommended
DoN-0130	Close Navy Marine Corps Reserve Center Mobile, AL; relocate to Armed Forces Reserve Center Mobile ,AL (JAST)	9,897	1,916	(7,981)	696	13	0	0	0	Tentatively Recommended
DoN-0129	Close Navy Marine Corps Reserve Center Tulsa, OK; relocate to Armed Forces Reserve Center Broken Arrow, OK (JAST)	7,712	1,735	(5,977)	583	12	(8)	0	(8)	Tentatively Recommended
USA-0226 V2	Realign FT Leonard Wood, MO by relocating the Drill Sgt School to Ft Jackson, SC	19,128	1,719	(17,409)	1,482	15	(22)	2	(20)	Tentatively Recommended
USAF-0036	Close Fort Smith MAP AGS, AR (Enclave ECS element)	13,265	1,719	(11,546)	949	15	0	0	0	Tentatively Recommended
USA-0100	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Lufkin, TX	11,185	1,623	(9,562)	813	14	(10)	0	(10)	Tentatively Recommended
TECH-0031	Consolidate Sea Vehicle Development & Acquisition at Washington Navy Yard, DC	3,336	1,619	(1,717)	223	8	0	(1)	(1)	Tentatively Recommended
MED-0004c	Disestablish inpatient mission at US Air Force Academy, CO	1,557	1,208	(349)	124	4	0	(6)	(6)	Tentatively Recommended
MED-0028	Establish Joint Biomed RDA Mgt Ctr at Ft. Detrick, MD by relocating various units from within the NCR to there	7,233	961	(6,272)	634	14				
USA-0198	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Mansfield, OH	12,263	839	(11,424)	893	16	(9)	(1)	(10)	Tentatively Recommended
USA-0132 V2	Relocate Cold Region Test Center from FT Wainwright, AK to FT Greeley, AK	685	634	(51)	49	2	0	0	0	Tentatively Recommended
USA-0131 V2	Close /Consolidate Army Reserve centers & USAR C2 Southeast	30,502	558	(29,944)	2,404	17	(46)	7	(39)	Tentatively Recommended
USA-0020	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Norman, OK	12,636	521	(12,115)	925	16	0	0	0	Tentatively Recommended
DoN-0102	Close Navy Marine Corps Reserve Center Des Moines, IA; relocate to Armed Forces Reserve Center Camp Dodge, IA (JAST)	4,875	467	(4,408)	368	15	(2)	0	(2)	Tentatively Recommended
DoN-0096	Close Navy Marine Corps Reserve Center St Louis, MO; Navy Reserve Center Cape Girardeau, MO to Armed Forces Reserve Center Jefferson Barracks, MO (JAST)	15,161	350	(14,811)	1,121	16	0	0	0	Tentatively Recommended
USAF-0050 V2	Close Ellington Field AGS, TX (Enclave ECS element)	2,037	120	(1,917)	126	17	0	0	0	Tentatively Recommended
	NEGATIVE NET PRESENT VALUE SORTED BY ACTIVE COMPONENT IN HIGHER TO LOWER NPV ORDER									
IND-0096	Realign NNSY Det NAVPESO Annapolis, MD to Norfolk SHPYD, VA	526	(15)	(541)	37	18	0	0	0	Tentatively Recommended
DoN-0168A	Realign NAVSTA Newport, RI; Relocat Naval Warfare Dev Cmd to NAVSTA Norfolk, VA	11,289	(172)	(11,461)	840	17	TBD	TBD	TBD	Awaiting IEC Review
IND-0116 V2	Realign NSWC Indian Head, MD by relocating functions to McAlester, OK and Crane, IN	3,601	(540)	(4,141)	317	18	0	(4)	(4)	Tentatively Recommended
USAF-0120	Realign Robins AFB, GA; relocate KC-135s to Forbes Field AGS, KS	3,039	(2,792)	(5,831)	66	100+	0	0	0	Tentatively Recommended
IND-0121 V3	Realign Indian Head Det Yorktown, VA	4,752	(2,847)	(7,599)	340	40	0	(5)	(5)	Tentatively Recommended
TECH-0042A	Consolidate Maritime C4ISR RDAT&E to 3 sites Dalgren, VA, Newport, RI, San Diego, CA	149,110	(2,903)	(152,013)	10,390	18	(7)	(212)	(219)	Awaiting IEC Review
USAF-0081	Realign Beale AFB, CA; relocate KC-135s to Selfridge ANGB, MI & McGhee-Tyson AGS, TN	(226)	(4,631)	(4,405)	(24)	Never	0	0	0	Tentatively Recommended
H&SA-0129	Realign NSA New Orleans, LA, relocating MC Res & MC Res Spt CMD to NS Norfolk, VA	54,703	(5,823)	(60,526)	4,417	18	(11)	(33)	(44)	Tentatively Recommended

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MED-0057	Realign Brooks City Base, TX; relocate Naval Health Research Ctr to Wright-Patterson, OH	262	(6,281)	(6,543)	(11)	Never	0	0	0	Awaiting IEC Review
USAF-0063	Realign Andrews AFB, MD by relocating AFFSA to Will Rogers AGS, OK	18,820	(7,187)	(26,007)	1,177	31	0	0	0	Tentatively Recommended
USAF-0125	Realign Indian Springs AFAF, NV; relocate UAVs to Holloman AFB, NM	4,167	(7,801)	(11,968)	178	100+	0	0	0	Tentatively Recommended
INTEL-0013 V2	Realign CIFA Colorado Springs, CO relocate to Peterson AFB, CO	6,014	(8,963)	(14,997)	442	100+				Awaiting IEC Review
H&SA-0078	Consolidate NAVAIR at NAS Patuxent River, MD	6,621	(9,814)	(16,435)	450	100+	0	0	0	Tentatively Recommended
H&SA-0008 V2	Air Force Personnel Center at Randolph AFB, TX	15,233	(15,084)	(30,317)	1,309	50	(12)	(11)	(23)	Tentatively Recommended
MED-0025	Establish Center of Excellence for Aerospace Medicine at Wright-Patterson AFB, OH	(8,465)	(20,580)	(12,115)	(781)	Never	0	0	0	Tentatively Recommended
H&SA-0135	Establish 4 Joint Regional Correctional Facilities	148,263	(22,105)	(170,368)	12,865	19	(246)	(23)	(269)	Tentatively Recommended
USAF-0124	Realign Dover AFB, DE; relocate C-17s to various Locations	(7,625)	(23,250)	(15,625)	(999)	Never	0	0	0	Awaiting IEC Review
H&SA-0056	Co-locate Miscellaneous USAF leased Locations	19,164	(27,098)	(46,262)	664	100+	29	13	42	Tentatively Recommended
H&SA-0108	Co-locate MILDEP Investigation Agencies at MCB Quantico, VA	53,059	(32,071)	(85,130)	4,104	36	(21)	(6)	(27)	Tentatively Recommended
USAF-0059 V2	Realign Maxwell AFB, AL	(1,457)	(33,059)	(31,602)	(445)	Never	0	0	0	Tentatively Recommended
USAF-0113 V2	Realign Hill AFB, UT; relocate AC F-16s to Nellis AFB, NV RC to various locations	(75)	(33,506)	(33,431)	(140)	Never	0	0	0	Tentatively Recommended
MED-0024	Establish Tri-service Biomedical Research Center of Excellence at Ft Detrick, MD	56,904	(35,709)	(92,613)	4,625	33	0	0	0	Awaiting IEC Review
USAF-0090	Realign Eglin AFB, FL; relocate MC-130s to Hurlburt Field, FL Retire F-15s	(22,898)	(51,392)	(28,494)	(1,969)	Never	0	0	0	Tentatively Recommended
USAF-0054 V2	Realign Mountain Home AFB, ID relocate F-16 to various locations	47,873	(52,414)	(100,287)	2,200	100+	0	0	0	Tentatively Recommended
USAF-0084	Realign Fairchild AFB, WA by relocating KC-135 & Consolidating GSUs at Fairchild	5,805	(56,905)	(62,710)	51	100+	0	0	0	Tentatively Recommended
USAF-0051 V2	Realign Seymour Johnson AFB, NC by relocating 15 aircraft to Mtn Home AFB, ID	(20,882)	(58,654)	(37,772)	(2,291)	Never	0	0	0	Tentatively Recommended
MED-0005	Consolidate Medical Basic and Specialty Enlisted Training at Ft Sam Houston, TX	167,587	(68,576)	(236,163)	13,916	26	(148)	(40)	(188)	Tentatively Recommended
H&SA-0092 V2	Relocate Army Material Cmd to Redstone, AL	28,088	(76,772)	(104,860)	1,636	100+	(12)	(9)	(21)	Tentatively Recommended
TECH-0035R	Consolidate Army C4SIR at Adelphi & Aberdeen Proving Ground, MD (realign Ft Monmouth, NJ and Redstone, AL)	606,225	(93,975)	(700,200)	46,799	20	(24)	(290)	(314)	Awaiting IEC Review
E&T-0038A	Establish Range Coordination Centers at NAS North Island, CA, Ft. Bliss, TX, and Eglin AFB, FL	(133,234)	(137,900)	(4,666)	(9,567)	Never	TBD	TBD	TBD	Awaiting IEC Review
E&T-0052	Joint Strike Fighter initial Flight Training to Eglin AFB, FL	(21,564)	(220,634)	(199,070)	(3,144)	Never	0	0	0	Tentatively Recommended
INTEL-0012 V2	Consolidate Missouri based National Geospatial-Intelligence Agency at Scott AFB, IL	266,690	(228,273)	(494,963)	15,981	70				Awaiting IEC Review
USA-0046 V2	Relocate FT Benning / Drill Sgt School, GA to FT Jackson, SC & Activate a BCT	(331,868)	(463,028)	(131,160)	(27,530)	Never	3,251	91	3,342	Tentatively Recommended
USA-0040 V2	Relocate the 7Th SFG, FT Bragg, NC to Eglin AFB, FL	(404,933)	(679,973)	(275,040)	(31,909)	Never	3,154	69	3,223	Tentatively Recommended
USA-0224R	Realign FT Hood, TX by relocating 4th ID BCT to Ft Carson, CO	(547,553)	(1,046,749)	(499,196)	(48,797)	Never	(23)	133	110	Awaiting IEC Review
USA-0221	Realign CONUS based Heavy Brigades and Global Posture Study forces to Ft Bliss, TX and Ft Riley, KS	(4,163,625)	(8,003,154)	(3,839,529)	(328,769)	Never	31,538	848	32,386	Tentatively Recommended
NEGATIVE NET PRESENT VALUE SORTED BY GUARD/RESERVE COMPONENT IN HIGHER TO LOWER NPV ORDER										
USA-0196	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Vance AFB, OK	8,378	(274)	(8,652)	622	18	0	0	0	Tentatively Recommended
USA-0187	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center East Houston, TX (JAST)	46,637	(770)	(47,407)	3,372	18	(14)	(45)	(59)	Tentatively Recommended
USA-0164 V2	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Newark, DE (JAST)	12,282	(1,275)	(13,557)	892	20	(7)	(2)	(9)	Tentatively Recommended
USAF-0069	Close Munoz Marin Intl Airport AGS, PR (Enclave ECS element)	9,894	(1,522)	(11,416)	734	23	0	0	0	Tentatively Recommended
USAF-0033 V2	Close Bradley Intl Airport AGS, CT (Enclave ECS element)	3,673	(2,200)	(5,873)	241	43	0	0	0	Tentatively Recommended
USAF-0065	Realign Pittsburgh Intl Airport AGS, PA; relocate KC-135 to Sioux Gateway APT AGS, IA	(230)	(3,274)	(3,044)	(26)	Never	0	0	0	Tentatively Recommended
USA-0111	Close /Consolidate Army Guard And Reserve Centers at Armed Forces Reserve Center McCook, NE	1,933	(3,322)	(5,255)	138	100+	0	0	0	Tentatively Recommended
USAF-0067	Realign Schenectady County APT AGS, NY	(213)	(3,778)	(3,565)	(30)	Never	0	0	0	Tentatively Recommended

Candidate Recommendation Financials Summary
Sorted on Net Present Value (Highest to Lowest)

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USA-0212 V2	Close/Consol. Army NG/Res Ctrs w/Navy Reserve Center at Armed Forces Reserve Center Chicopee, MA (Westover ARS)	97,807	(4,074)	(101,881)	7,072	19	(33)	(44)	(77)	Tentatively Recommended
USA-0162	Close/Consol Army Res Ctrs w/ Marine Corps Reserve Center at Armed Forces Reserve Center Chester-Germantown, PA (JAST)	12,160	(4,753)	(16,913)	877	30	(9)	(1)	(10)	Tentatively Recommended
USA-0018	Close Camden USARC; relocate to Armed Forces Reserve Center Camden, AR	(874)	(5,868)	(4,994)	(77)	Never	0	0	0	Tentatively Recommended
USAF-0080 V2	Realign Birmingham Intl Airport AGS, AL (Enclave ECS element)	10,493	(6,042)	(16,535)	753	38	0	0	0	Tentatively Recommended
USA-0144	Close/Consolidate Army Reserve with Marine Corps Reserve Center at Armed Forces Reserve Center on NS Great Lakes, IL (JAST)	4,633	(6,180)	(10,813)	334	100+	0	0	0	Tentatively Recommended
USA-0106	Close/Consolidate Army Guard & Reserve Centers at Armed Forces Reserve Center Spencer-Ripley, WV	2,543	(6,246)	(8,789)	176	100+	(1)	0	(1)	Tentatively Recommended
USA-0148	Close/Consolidate Army Guard/Reserve Center at Armed Forces Reserve Center Brownsville, TX	223	(6,413)	(6,636)	5	100+	0	0	0	Tentatively Recommended
USA-0178 V2	Close/Consolidate Army Reserve with Marine Corps Reserve Center at Armed Forces Reserve Center Frederick, MD (JAST)	(465)	(6,587)	(6,122)	(50)	Never	0	0	0	Tentatively Recommended
USA-0175	Close/Consol Army Reserve with Marine Corps Reserve Center at Armed Forces Reserve Center Bristol-Woodhaven, PA (JAST)	11,320	(6,934)	(18,254)	755	41	0	0	0	Tentatively Recommended
USA-0171R	Close/Consolidate Army Reserve centers with Navy Reserve Center at Armed Forces Reserve Center Wilmington, NC	1,553	(7,503)	(9,056)	94	100+	0	0	0	Tentatively Recommended
USA-0156	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Ft Custer, MI (JAST)	282	(7,506)	(7,788)	10	100+	0	0	0	Tentatively Recommended
USA-0101	Close/Consolidate Reserve and Guard Center at Armed Forces Reserve Center Huntsville, TX	(883)	(7,593)	(6,710)	(79)	Never	0	0	0	Tentatively Recommended
USA-0191	Close and relocate Army Reserve ctr at Armed Forces Reserve Center Great Falls, MT (Malmstrom AFB)	(26)	(7,604)	(7,578)	(15)	Never	0	0	0	Tentatively Recommended
USAF-0083	Realign March ARB, CA; relocate KC-135s to March ARB, CA; Pease AGS, NH; and McConnell AFB, KS	9,227	(7,813)	(17,040)	347	Never	0	0	0	Tentatively Recommended
USA-0174	Close/Consol Army Guard and Reserve Ctrs at Armed Forces Reserve Center NAS Kingsville, TX (JAST)	622	(7,816)	(8,438)	32	100+	0	0	0	Tentatively Recommended
USA-0208	Close/Consolidate Army Guard and Reserve centers at Armed Forces Reserve Center Hot Springs, AR	1,082	(7,829)	(8,911)	65	100+	0	0	0	Tentatively Recommended
USA-0210 V2	Close and relocate Army Reserve Ctr to Armed Forces Reserve Center Fargo, ND (Hector AGS) (JAST)	(63)	(7,920)	(7,857)	(18)	Never	0	0	0	Tentatively Recommended
USA-0085	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Faribault, MN	901	(8,121)	(9,022)	53	100+	0	0	0	Tentatively Recommended
USA-0160	Close/Consolidate Army NG with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Milwaukee, WI (JAST)	14,992	(8,272)	(23,264)	1,064	37	(16)	0	(16)	Tentatively Recommended
USA-0090	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Stewart, NY	17,346	(8,336)	(25,682)	1,265	33	0	0	0	Tentatively Recommended
USA-0109	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Beatrice, NE	(386)	(8,586)	(8,200)	(44)	Never	0	0	0	Tentatively Recommended
USA-0177	Close/Consol Army Reserve w Navy Marine Corps Reserve Center at Armed Forces Reserve Center Allentown-Bethlehem, PA (JAST)	(145)	(8,954)	(8,809)	(26)	Never	0	0	0	Tentatively Recommended
USA-0139	Close/Consolidate Army Guard/Reserve with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Buckeye, AZ (JAST)	7,299	(8,981)	(16,280)	534	100+	0	0	0	Tentatively Recommended
USA-0097	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Mayaguez, PR	5,320	(9,038)	(14,358)	386	100+	0	0	0	Tentatively Recommended
USA-0086	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Cambridge, MN	(1,167)	(9,505)	(8,338)	(102)	Never	0	0	0	Tentatively Recommended
USA-0182	Close/Consolidate Army Reserve Ctrs with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Shreveport, LA (JAST)	91	(9,614)	(9,705)	(10)	Never	0	0	0	Tentatively Recommended
USA-0019	Close /Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center El Dorado, AR	(752)	(9,802)	(9,050)	(73)	Never	0	0	0	Tentatively Recommended
USAF-0111	Realign Capital AGS, Springfield, IL relocate F-16 Ac to Wayne Intl Airport AGS, IN	(278)	(10,195)	(9,917)	(80)	Never	0	0	0	Tentatively Recommended
USA-0082	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Muscatine, IA	(1,806)	(10,224)	(8,418)	(152)	Never	0	0	0	Tentatively Recommended

Candidate Recommendation Financials Summary

Sorted on Net Present Value (Highest to Lowest)

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USA-0094	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Williamsport, PA	2,006	(10,591)	(12,597)	132	100+	0	0	0	Tentatively Recommended
USAF-0038	Realign Hancock Field AGS, NY (Enclave ECS and 152 AOG /274 ASOS)	(2,750)	(10,698)	(7,948)	(226)	Never	0	0	0	Tentatively Recommended
USA-0143 V2	Close/Consol Army Guard /Reserve with Navy Reserve Center at Armed Forces Reserve Center FT Benning, GA (JAST)	10,387	(10,775)	(21,162)	727	80	(13)	(1)	(14)	Tentatively Recommended
USA-0181	Close/Consolidate Army NG/RES Ctrs w/Marine Corps Reserve Center at Armed Forces Reserve Center Amarillo, TX (JAST)	795	(10,800)	(11,595)	40	100+	0	0	0	Tentatively Recommended
USAF-0064 V2	Close New Castle APT AGS, DE (Enclave ECS element)	10,668	(10,838)	(21,506)	668	100+	0	0	0	Tentatively Recommended
USA-0064	Close/Consolidate Guard Maint sites at Armed Forces Reserve Center Holston AAP, Kinsport, TN	2,172	(10,901)	(13,073)	141	100+	0	0	0	Tentatively Recommended
USA-0057	Close/Consolidate NG Maintenance sites at Ft Chaffee, AR	8,415	(10,917)	(19,332)	595	100+	0	0	0	Tentatively Recommended
USA-0179	Close/Consolidate Army NG/Res Ctrs at Armed Forces Reserve Center NSA Smokey Point, WA (JAST)	1,967	(10,981)	(12,948)	127	100+	0	0	0	Tentatively Recommended
USA-0199	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Springfield, OH	772	(11,211)	(11,983)	37	100+	0	0	0	Tentatively Recommended
USAF-0086	Realign Selfridge ANGB, MI	9,992	(11,583)	(21,575)	610	100+	0	0	0	Tentatively Recommended
USA-0176	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Cedar Rapids, IA (JAST)	2,270	(12,273)	(14,543)	148	100+	0	0	0	Tentatively Recommended
USA-0026	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center FT Campbell, KY	(41)	(12,649)	(12,608)	(28)	Never	0	0	0	Tentatively Recommended
USA-0108	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Elkins, WV	(1,464)	(12,816)	(11,352)	(132)	Never	0	0	0	Tentatively Recommended
USA-0084	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Mt Vernon, IL	2,418	(12,891)	(15,309)	158	100+	0	0	0	Tentatively Recommended
USA-0103	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Tyler, TX	15,855	(13,279)	(29,134)	1,125	54	0	0	0	Tentatively Recommended
USA-0159	Close/Consol Army Reserve Ctrs with Navy Marine Corps Reserve Center at Armed Forces Reserve Center Chattanooga, TN (JAST)	(3,155)	(13,837)	(10,682)	(259)	Never	0	0	0	Tentatively Recommended
USAF-0047	Close Springfield-Beckley MPT AGS, OH (Enclave ECS and Comms elements)	(1,973)	(14,151)	(12,178)	(240)	Never	0	0	0	Tentatively Recommended
USAF-0089 V2	Close Kulis AGS, AK	41,252	(14,162)	(55,414)	3,373	25	0	0	0	Tentatively Recommended
USA-0089	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Missoula, MT	2,622	(15,372)	(17,994)	168	100+	0	0	0	Tentatively Recommended
USA-0163	Close/Consolidate Army NG/Res Ctrs w/Marine Corps Reserve Center at Armed Forces Reserve Center Stranton, PA (JAST)	15,720	(15,678)	(31,398)	1,108	72	(14)	(1)	(15)	Tentatively Recommended
USA-0098	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Lewisville, TX	185	(16,320)	(16,505)	(15)	Never	0	0	0	Tentatively Recommended
USA-0217	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Moffet Field, CA (JAST)	24,430	(16,350)	(40,780)	1,792	42	(3)	0	(3)	Tentatively Recommended
USA-0070	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center NW Arkansas	1,357	(16,429)	(17,786)	72	100+	0	0	0	Tentatively Recommended
USA-0183	Close/Consolidate Army NG/Res Ctrs w/ Marine Corps Reserve Center at Armed Forces Reserve Center Red River, TX (JAST)	838	(17,178)	(18,016)	32	100+	0	0	0	Tentatively Recommended
USA-0218	Close/Consol Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center Yakima Tng Ctr, WA (JAST)	(1,595)	(18,337)	(16,742)	(153)	Never	0	0	0	Tentatively Recommended
USA-0017	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Jonesboro, AR	205	(18,406)	(18,611)	(18)	Never	0	0	0	Tentatively Recommended
USA-0146	Close/Consolidate Army Guard / Reserve Center at Armed Forces Reserve Center Round Rock, TX	2,988	(18,645)	(21,633)	192	100+	0	0	0	Tentatively Recommended
USA-0117	Relocate USAR and ECS to new site at Pelham Rng, AL	(2,490)	(19,066)	(16,576)	(219)	Never	0	0	0	Tentatively Recommended
USA-0184 V2	Close/Consol Army NG/Res Ctrs w/Navy Marine Corps Reserve Center Armed Forces Reserve Center Camp Withycombe, OR (JAST)	4,104	(20,004)	(24,108)	275	100+	0	0	0	Tentatively Recommended
USAF-0060	Close Nashville Intl Airport AGS, TN (Enclave ECS element)	1,857	(20,169)	(22,026)	85	100+	0	0	0	Tentatively Recommended
USA-0207	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Fairchild AFB, WA	2,049	(20,852)	(22,901)	116	100+	0	0	0	Tentatively Recommended

Candidate Recommendations Financials Summary
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USA-0096	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Allen, PR	(6,344)	(20,911)	(14,567)	(505)	Never	0	0	0	Tentatively Recommended
USA-0027	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Lafayette, IN	1,782	(21,757)	(23,539)	102	100+	0	0	0	Tentatively Recommended
USA-0016	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Ft Chaffee, AR	1,504	(21,976)	(23,480)	73	100+	0	0	0	Tentatively Recommended
USAF-0068	Realign Reno-Tahoe Intl Airport AGS, CA (Enclave ECS element and DCGS)	(2,708)	(22,101)	(19,393)	(417)	Never	0	0	0	Tentatively Recommended
USA-0029	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center NW Houston, TX	3,102	(23,430)	(26,532)	186	100+	(2)	0	(2)	Tentatively Recommended
USA-0077	Close/Consolidate Reserve and Guard Centers at IOWA AAP, Middletown, IA	(2,973)	(24,159)	(21,186)	(263)	Never	0	0	0	Tentatively Recommended
USA-0095	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center NAS Roosevelt Rds, Celiba, PR	1,826	(24,581)	(26,407)	97	100+	0	0	0	Tentatively Recommended
USA-0028	Close/Consolidate Guard Readiness Centers at Armed Forces Reserve Center Greenwood-Franklin, IN	(1,768)	(25,509)	(23,741)	(171)	Never	0	0	0	Tentatively Recommended
USA-0105	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Rutland, VT	11,070	(25,996)	(37,066)	792	100+	0	0	0	Tentatively Recommended
USAF-0041	Close Lambert-St Louis Intl Airport AGS, MO (Enclave ECS element)	(1,209)	(26,546)	(25,337)	(35)	Never	0	0	0	Tentatively Recommended
USAF-0052	Close Willow Grove ARS, PA (Enclave 270th Eng Sqdn)	15,981	(28,104)	(44,085)	919	100+	0	0	0	Tentatively Recommended
USA-0194	Close/Consolidate Army Guard and Reserve centers at Armed Forces Reserve Center Niagara Falls, NY	(5,685)	(29,289)	(23,604)	(476)	Never	0	0	0	Tentatively Recommended
USA-0201	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Dyess AFB, TX	(1,696)	(31,042)	(29,346)	(183)	Never	0	0	0	Tentatively Recommended
USA-0104	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Camp Bullis, TX	1,047	(31,320)	(32,367)	6	100+	0	0	0	Tentatively Recommended
USA-0158 V2	Close/Consolidate Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center NS Newport, RI (JAST)	(1,460)	(33,395)	(31,935)	(168)	Never	0	0	0	Tentatively Recommended
USAF-0055	Realign NAS New Orleans ARS, LA, relocate A-10 to Whiteman AFB, MO & Barksdale AFB, LA	(4,191)	(33,730)	(29,539)	(486)	Never	0	0	0	Tentatively Recommended
USA-0193R	Close and relocate Army Guard ctrs to AASF Cheyenne, WY (FE Warren AFB)	34,313	(35,640)	(69,953)	2,427	78	(19)	0	(19)	Tentatively Recommended
USA-0180	Close/Consolidate Army NG/Res Ctrs w/ Navy Reserve Center at Armed Forces Reserve Center FT Buchanan, PR (JAST)	(4,883)	(35,896)	(31,013)	(443)	Never	0	0	0	Tentatively Recommended
USA-0138	Close/Consol Army Guard / Reserve with Navy Reserve Center at White River Junction, VT (JAST)	2,042	(36,415)	(38,457)	86	100+	0	0	0	Tentatively Recommended
USAF-0079	Close Portland Intl Airport AGS, OR; relocate KC-135 ,F-15s (Enclave Comms Sqdns)	7,934	(38,589)	(46,523)	473	100+	0	0	0	Tentatively Recommended
USA-0168 V2	Close/Consolidate Army Reserve Centers USAR C2 Southwest	15,917	(39,598)	(55,515)	1,255	100+	(64)	(2)	(66)	Tentatively Recommended
USAF-0127	Close Yeager AGS, WV	(29,489)	(39,689)	(10,200)	(2,439)	Never	0	0	0	Tentatively Recommended
USA-0165	Close/Consolidate Army NG/Res Ctrs w/Marine Corps Reserve Center at Armed Forces Reserve Center Farmingdale, NY (JAST)	12,841	(41,284)	(54,125)	885	100+	0	0	0	Tentatively Recommended
USA-0092	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center FT Sill, OK	1,421	(45,105)	(46,526)	27	100+	0	0	0	Tentatively Recommended
USA-0015	Close/ Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Newtown, CT	14,984	(48,359)	(63,343)	1,050	100+	0	0	0	Tentatively Recommended
USA-0219 V2	Close/Consolidate Army and Reserve Ctrs at Armed Forces Reserve Center Newington, NH (Pease AGS)	(583)	(54,589)	(54,006)	(136)	Never	0	0	0	Tentatively Recommended
USA-0114 V2	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center Keaukaha, HI	(10,097)	(66,220)	(56,123)	(782)	Never	0	0	0	Tentatively Recommended
USA-0081	Close/Consolidate Reserve and Guard Centers at Armed Forces Reserve Center Middletown, CT	18,705	(67,984)	(86,689)	1,203	100+	(18)	(2)	(20)	Tentatively Recommended
USA-0202 V2	Close/Consol Army NG/Res Ctrs w/Navy Marine Corps Reserve Center at Armed Forces Reserve Center /CSMS Ayers, MA (JAST)	18,651	(82,300)	(100,951)	1,202	100+	0	0	0	Tentatively Recommended
USA-0155	Close/Consolidate Army Guard and Reserve Centers at Armed Forces Reserve Center DSC Columbus, OH	10,718	(100,388)	(111,106)	568	100+	(12)	0	(12)	Tentatively Recommended

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	TOTALS:	74,253,274	45,714,074	(28,539,200)	5,777,569		15,903	(21,099)	(5,196)	

NUMBER OF CANDIDATE RECOMMENDATIONS WITH NPV SAVINGS:	254
TOTAL NPV COSTS FOR THE 249 CANDIDATE WITH POSITIVE RETURNS:	59,099,509
NUMBER OF CANDIDATE RECOMMENDATIONS WITH NPV COSTS:	134
TOTAL NPV COSTS FOR THE 131 CANDIDATE WITH NEGATIVE RETURNS:	(13,385,435)

NOTE: Job Impacts include BASE X figures but do not include Germany and Korea job losses

Center for Industrial Research Applications
West Virginia University
Capabilities Analysis
6/7/2005
Dr. James Smith

Project OCULUS

Sensor Deployment Pallet System for the C-130

Introduction/Relevance

One of the most common and versatile aircraft utilized for missions, both military and domestic, is the C-130. The C-130 is manufactured by Lockheed Martin with the A model entering service for the USAF in 1956. The primary missions for the C-130 are as a medium range tactical airlift and as the prime transport for paratroop and equipment drops into hostile areas. Along with these primary missions, the C-130 has been modified into specialized platforms ranging from gun ships to electronic warfare platforms. C-130s have served other nations, airlifting heavy equipment into remote areas to build airports and roads, search for oil and to transport local goods.

Because the C-130 is used for parachute drops, the plane may also be flown with the ramp down during flight. The value of this aircraft as a reconnaissance platform has already been recognized and exploited by many agencies. This platform can be modified to perform a variety of missions without compromising the main role of the aircraft. This is done by packaging specialized equipment (i.e. FT-IR, LIDAR, etc.) onto pallets that can be loaded into the aircraft and unloaded at the end of each mission. The C-130 can be, and has been, used as a reconnaissance asset for both domestic and international missions utilizing a variety of packaged sensors.

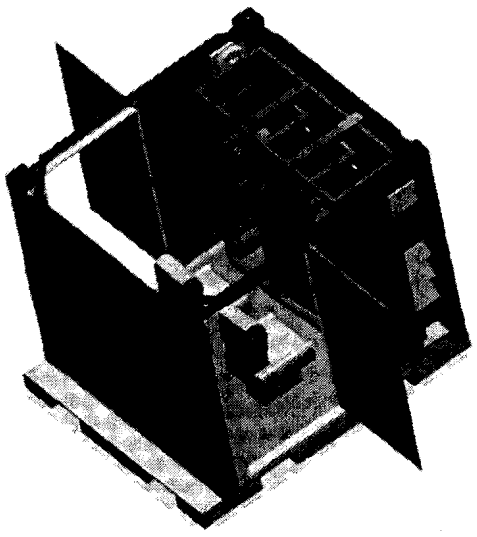
Each of the existing reconnaissance missions have deployed a variety of sensors in a myriad of configurations sometimes requiring alteration of the aircraft or requiring a change in the flight allowances. A common, inexpensive and versatile palletized sensor support system is needed to be developed for universal deployment. This need has been met under Project OCULUS.

OCULUS - Description

A roll-on/roll-off (Ro-Ro) sensor pallet for the C-130 is not a new idea; it is simply an idea that has not yet been exploited to its full potential. The C-130-fitted airborne deployment technology, named "Oculus" for reference to sight or vision, was designed by a team led through Dr. James Smith, an aerospace engineering professor who heads WVU's Center for Industrial Research Applications (CIRA). Under contract to the DoD-CNTPO and the NGB-CD Technology Consortium, CIRA has designed and constructed this fully prototyped and integrated remote sensor deployment system. Oculus has been developed to support a broad spectrum of the latest in remote sensor technology for missions requiring highly proficient reconnaissance capabilities. These capability requirements are explained below. The development of this system has been funded in the form of research contracts with the DoD-CNTPO and the National Guard-CDB. The currently testable prototype is now flexible enough to accommodate rapid modification to suit individual mission needs for a wide variety of remote sensing requirements.

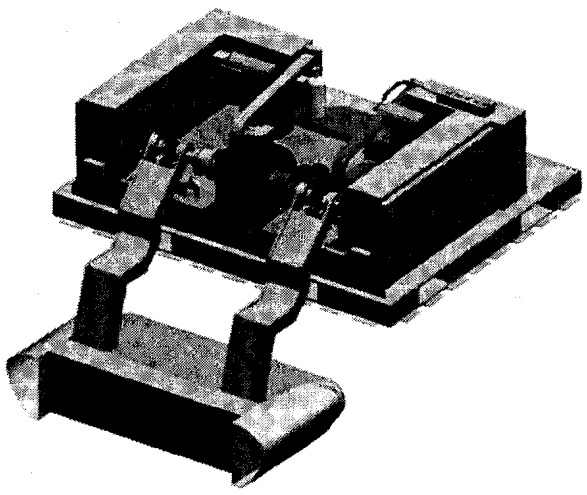
From the ground up, Oculus has been structurally designed for durability. The current Oculus system, scheduled for immediate preliminary flight-testing, is a storable two-pallet system. To ensure a standardized sensor pallet system, both structures are constructed on standard cargo pallets that are easily secured within the C-130 cargo hold. These pallets are standard size; cost efficient and are used in all U.S. military cargo aircraft and have a strengthened perimeter for securing up to 10,000 lbs of cargo.

Additionally, the choice of this pallet fulfills another important requirement. It was essential that the complete deployment system be compatible with all C-130 aircraft because the C-130 has been produced in A through H variants for almost fifty years in appreciable numbers. Using a standardized pallet insures that any in-use C-130 will be able to transport and utilize the Oculus system, and this translates into potentially broader application by virtue of number.



Operator's Station

Loading Operator's Station



Sensor Pallet

Deployed Position of Sensor Pallet

Figure 1. OCULUS Deployment pallet and Operator Station

Project Oculus is a two-phase development program. The first phase involves the development and fabrication of the current two-pallet system, now ready for flight testing; the second phase uses the flight test data to modify the system for any case-of-use considerations suggested by the operators and goes on to design and build a sealing mechanism that, when attached to Oculus, will allow the aircraft to be sealed for missions above 10,000 ft in altitude. The first storable assembly of the Oculus system (Figure 1) is an enclosure placed within the main cargo hold of the aircraft. This area, the operator's station, houses the technical personnel, electrical inverters, control computers - for the sensor arrays, and communications equipment. The second assembly is a stable mechanical device that attaches to the rear loading-ramp of the aircraft. The mechanical arms of the second - pallet sensor system - are specifically fitted to the C-130 rear-loading door. These arms, via a one-touch automatic process, swing a "pod" carrying sensors into position against the lower edge of the loading door through a series of electrically driven rotational and linear movements. Once in place against the level positioned loading door, operators can begin collecting data through the sensors with an ideal view of ground targets.

Design Factors

The Oculus two-pallet system has been designed under the criterion of mission flexibility, stability, field of view, storability, modular attachment space and provisions for expansion and upgrade. Despite this guiding complexity, however, the resulting technology is equipped with a straightforward connection scheme that makes the system operational with a minimum of cost, time, effort and training. All the computers, construction equipment and peripherals that compose Oculus are easily found – and thereby replaceable- off-the-shelf products - insuring a low final unit cost once the system has been certified for broader dispersal. Also, the existing computer systems, antennas and global positioning units that Oculus employs have an already proven record of success with multiple reconnaissance and surveillance based missions.

The system can be locked into the back of a C-130 transport plane, for operations, in fewer than 30 minutes. Automatic deployment and individual plug configurations insure fail-safe installation and operation. The complete sensor pallet system is simple enough to be installed and maintained by existing personnel, meaning that the system's pallets mount within the C-130 in the same fashion as standard cargo pallets and the tools and supplies used to maintain the pallet are standardized and common. The operation of the platform is executed with a simple PC-type interface meaning that enlisted personnel can be trained to operate the system easily. The necessity for ease-of-use also dictated a common *sensor* port that enables the operator's station to view and collect the information from all utilized sensors through a single connection. This ensures that any specified number of various sensors can be simultaneously mounted and deployed with a minimal of operator effort. The sensor interfaces will ultimately be completely standardized and the support equipment will be packaged in a modular design.

The design process for this system was heavily guided by interviews and feedback from pilots, loadmasters, operators, manufacturers and engineers who fly and maintain the C-130. During the planning phase it was discovered that many diverse physical locations exist throughout the C-130 for the situation and utilization of sensor arrays and communication equipment. However, the only resources aboard the aircraft immediately useful without modification, apart from the cargo area's physical space, are the electrical and communication buses accessible from the cargo bay. It was critical that the electrical impact of any sensor suite or alternative deployed device was included in the process of determining mission supportive sensor packages. This work has been completed for Project Oculus.

Counterdrug and C^4ISR Support

Many C-130 based missions are currently executed without the full advantage of advanced technologies that may enhance operations that require detecting, identifying, mapping, characterizing, modeling, targeting, tracking, and surveillance of targets of interest from the air. Missions requiring these technologies could include Counterdrug (CD) as well as Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C^4ISR) airborne sensing capabilities. Given the proper capabilities, C-130 missions could also be expanded to include toxin detection, airborne early warning and control, fire characterization, search and rescue, communications intelligence (COMINT), electronics intelligence (ELINT)/warfare, reconnaissance, surveillance and targeting, marine, terrestrial mine and obstruction detection, combat SAR and unmanned aerial vehicles (UAV) relay control in support of the warfighter and HLS applications.

To further support the engineering process and to optimize the Oculus system's credentials as a valuable tool of assistance for Counterdrug and C^4ISR Support, it was important to develop and adhere to some form of sensor requirements. This begin with a compilation of fundamental and preferred mission requirements as determined through contacts with multiple agencies and various Airlift Wings interested in enhancing mission capabilities with the use of the C-130 aircraft. In addition, it was important to verify the practicality and effectiveness of any given sensor technology, as many advances have not yet been matched with mission needs and stand as theoretically useful until successfully applied. These determined requirements were then matched against remote data needs, current and future sensor capabilities and with those sensors and technologies that were defined through previous studies and/or contacts with vendors. Some of these capability requirements included stability, mounting space and the means of arranging equipment for maximum results.

Sensors listed below are preferred as readily accommodated by the C-130 airframe. These remote sensor technologies and supporting electronics are those that have the greatest potential use in supporting C-130 Counterdrug and C^4ISR based missions and fall within the listed specification of effectiveness.

- Spectral Sensors (Multi-spectral, Hyper-spectral, etc.)
- Electro – Optical (FTIR, etc.)
- LIDAR
- Imaging Radar (SAR)
- Digital or wet film Cameras with Mosaic Capability

Additionally, a modular system capable of supporting ELINT/COMINT, on-board data processing and LOS/OTH antennae systems was found to be preferable. Ultimately, the inclusion of all remote sensor categories in the design process ensures that Oculus is adequately robust and preemptively designed to support current and future Counterdrug and C^4ISR needs.

Current and Future

For broader dispersal and application, an important phase in the sensor pallet development is that of meeting the required airworthiness standards (certification requirements) for a non-required system (with respect to airplane flight, communication and navigation) that is to be installed on a C-130 airplane as a palletized unit restrained by the airplane cargo handling and restraint system. Following certification, the sensor pallet system will be more rapidly deployable both CONUS and over countries requiring the same, if not similar, certification prior to the use of flight deployable reconnaissance systems.

Advanced work will involve a comprehensive study and blueprint process to determine and construct a design capability of sealing the cargo hold of the C-130 for missions flying at altitudes above 10,000 feet. At flight levels above the ceiling of 10,000 feet, during the operational phase of the current sensor pallet design, it becomes necessary to seal the cargo hold of the C-130 aircraft to maintain pressure for the safety of the crew and operators. In order that the current pallet design will have full mission support capabilities for reconnaissance needs, the OCULUS development team is examining and designing, under to be funded Phase II of this program, a system where-by the cargo area may be sealed once the sensor system has been deployed.

Summary

The Oculus sensor deployment system was initially designed to be as robust as possible in support of Counterdrug (CD) missions and has been developed with the input of many agencies including the DoD-CDTPO, the NGB-CD, JIATF-W&S, the WV-NG and the WV-ANG. Major areas of CD operations that were central to the development of this system were Cocaine and Cannabis detection, Cannabis in-door grow and mapping, meth-lab detection (dumpsites and cooks) and Positioning and Tracking through electronic signals (ELINT and COMINT). A compilation of fundamental and preferred mission requirements were assembled through contacts with multiple CD operative and DLEA supporting agencies, including ANG wings, interested in enhancing CD assistance capability with the use of the C-130 aircraft. These requirements were matched against available remote data, current sensor capabilities and with those sensors and technologies that were defined through previous studies. Extensive work has been accomplished cataloging and characterizing sensors and technologies useful in CD operations. These sensors were matched against the supportive capability of the Oculus system by listing the essential aspects related to the sensor (or other) technology including physical dimensions, power requirements, connection method, FOV requirements, mounting criteria, environmental conditions, support electronics and finally, EMI compatibility.

The Oculus system is now flexible enough to accommodate rapid modification to suit individual user needs for a wide variety of CD and other mission requirements from the platform of the C-130 aircraft. The system is designed with the potential for multiple arrangements that will have distinct advantages over previous designs. The sensor interfaces will ultimately be completely standardized and the support equipment will be packaged into a modular design. The Oculus system has been designed with enough flexibility to absorb and accommodate changes in technology and will prove cost effective as advances in remote sensing develop.

MARSHALL UNIVERSITY
ECONOMIC STUDY

The Economic Impact of the Realignment of the 130th Air National Guard Airlift Wing at Yeager Airport

June 2005

Prepared for:

Yeager Airport

Prepared by:

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Executive Summary

The Center for Business and Economic Research at Marshall University in Huntington, WV has been contracted to prepare an economic analysis of the realignment of the Air National Guard 130 Airlift Wing. The "Final Selection Criteria Department of Defense Base Closure and Realignment" include consideration of "The economic impact on existing communities in the vicinity of military installations". This report provides that information and reaches the following conclusions. At the same time the control tower at Yeager Airport is scheduled for closure by the FAA during late night and early morning hours creating further economic problems. This closure is also discussed.

1. The 130th Airlift Wing operates from a joint use airport at Yeager which is located in Charleston, WV. The impact of the reassignment creates two economic impacts: One for the loss of base jobs and spending, and another for negative effects of the realignment on Yeager Airport's operations. Calculations presented in the BRAC report do not include the second set of impacts and underestimate the first.
2. The economy of the Charleston, WV/ Yeager air traffic region and the entire State of West Virginia is depressed.
   a. Poverty rates are higher,
   b. Per capita income is way lower and
   c. Employment is stagnant.

   This seriously impedes the ability of the area to absorb the displaced workers or to generate replacement spending.
3. While the ANG facility at Yeager will not be closed, but only realigned, the few remaining civilian and military jobs can not generate the additional spending needed to offset the loss of the 130th Airlift Wing.
4. The realignment of the 130th Airlift Wing will remove from the WV economy:
   a. 814 total jobs
   b. $22 million in annual spending
5. The loss of the 130th Airlift Wing will negatively impact Yeager Airport.
   a. Yeager will lose the Fire/Rescue and perimeter security services now provided by the 130th Airlift Wing.
   b. Replacing these services will cost Yeager approximately $1.7 million a year plus $7 million in start up costs.
   c. These increased costs will quadruple or quintuple landing fees for aircraft using Yeager Airport and threaten the cancellation of flights.
   d. The closing of the Yeager tower for late night and early morning flights will affect 26 percent of all Yeager passengers with the possible loss of flights and with major inconvenience to travelers.
   e. The tower closing will reduce the potential for further expansion of air cargo traffic that usually flies at night at Yeager.
6. Studies done on base closures and realignments which have indicated that closures and realignments have no adverse economic impacts are not applicable to the 130th Airlift Wing realignment and Yeager Airport.

a. These studies were not completed for joint use facilities.
b. Most of the closures were in areas with faster growing economies than the Yeager trade area.
c. There were often other nearby military installations that could absorb the displaced personnel.
d. In virtually every case, substantial readjustment aid was provided by the Federal government. None to date has been promised to Yeager and Charleston.
e. In most instances, the base facilities were turned over to the city or a regional development authority to permit airfield industrialization. This does not appear to be the case for Yeager.

For these reasons, using studies done elsewhere as evidence of no or only limited impact from the realignment is not appropriate.

The Center for Business and Economic Research bases the conclusions in this report on:

- A review of previously published studies on base closures and realignments.
- Data obtained from federal governmental sources, from the 130th Airlift Wing and from the June 13, 2005 visit of the BRAC team to Charleston. This data has not been independently verified by CBER.
- Use of the IMPLAN Input/Output model to predict the impact of jobs and spending from the realignment and effects on Yeager Airport for the regional economy.

There are certain limitations to this study which include:

- The future mission of the ANG facility at Yeager has not been clarified. Only limited information regarding the future use of the land and buildings has been made available to CBER by the BRAC. The future uses made of the facility could alter the conclusions in this report. Since civil engineering, security, supply and planning functions appear as if they will remain at Yeager, these have been excluded from the impact of the realignment of the 130th Airlift Wing.
- There has been no indication of what federal assistance, if any, will be made available to offset the impact of the realignment. The type, amount and timing of federal assistance could also alter these conclusions.

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1. Information on Yeager Airport

The airport is three miles northeast of the State capital, Charleston, West Virginia. The City of Charleston is the governmental and economic hub of the state and its largest city with a population of around 50,000. Yeager Airport is located in the South-central part of the state in Kanawha County. West Virginia is the second most sparsely populated state in the nation with most of its area being classified as non-urban or rural.

The National Plan of Integrated Airport Systems (NPIAS) classifies the airport as a "commercial service, primary airport". This designation applies to airports enplaning 2,500 or more passengers on an annual basis with scheduled passenger service producing at least 0.01 percent of the total US enplaned passengers. Yeager is also designated a "medium haul airport" as its usual flight distances range from 500-1500 miles.

Charleston is served by three major interstate highways: I-64 crosses the state east-west and intersects with I-77 north-south at Charleston. I-79 joins the others running from the northeast. Corridor "G", a four lane limited access highway, runs southwest from Charleston. Its location on a navigable portion of the Kanawha River allows Charleston to be an intermodal city serving a wide area of West Virginia. Charleston's location and its status as the seat of government provide the basis for its economy.

The airport's trade area is designated by geographical and access considerations and the proximity of other commercial facilities. The latest master plan for Yeager (Wilber Smith, 2000) found the air trade area to consist of six counties and portions of 14 others. All of these are served by the major highways described above. These are designated on the attached map at the end of this report.

There are no commercial airports within 20 miles of Yeager, but commercial service is available at Tristate Airport in Huntington, WV which is at 60 miles distance and at Wood County Airport in Parkersburg, WV which is approximately the same distance from Yeager. Tristate has less than half the enplanements as Yeager and Wood County only about one quarter. Air travelers from the border cities of Huntington and Parkersburg make extensive use of major hub airports in Cincinnati and Columbus Ohio (GRA 2003) which are within comfortable driving distance from those cities and are served by low fare carriers. The "leakage" to these major hub airports creates a highly competitive situation for Yeager Airport, particularly for leisure travelers.

Yeager is currently served by six air carriers, five of which are commuter/express affiliates for the major airlines with which they are established. The sixth, Independence Air, has no affiliation and flies only to Dulles Airport in Washington, D.C. The following table provides information on those flights.

Table 1. AIR SERVICE AT YEAGER AIRPORT
JUNE 2005

Air Carrier	Number of Daily Flights	Destinations
US Airways	15	Pittsburgh, Philadelphia, Washington DC Reagan, Charlotte
Delta	9	Cincinnati, Atlanta
Northwest	4	Detroit
Continental	5	Cleveland, Houston
United	5	Washington DC Dulles, Chicago
Independence	3	Washington DC Dulles

Yeager airport experienced 247,871 enplanements in 2004 according to the FAA (FAA, 2005). Total operations were 84,949. Both these figures reflect that traffic has not yet returned to pre-9/11 levels. But FAA forecasts see enplanements rising to 308,148 and operations to 91,890 by 2020.

a. Economic Situation in Yeager Air Trade Area

West Virginia is one of the poorest states in the nation. The state ranks 48th in per capita income, with an average of only 70 percent of the nation's per capita income (WV $23,466-US $31,472). West Virginia has a poverty rate of 17.7 percent which is 125 percent of the national average. Educational attainment is also well below the national norm.

Economic Distress. The statistics for the area served by Yeager Airport are even more discouraging. As seen from the table below, for the 20 county area, poverty is high above the national average and per capita income is far below. Sixteen of these counties are classified by the Appalachian Regional Commission as "economically distressed". Almost one quarter of the adult population have no high school diploma or GED. Any reductions in economic opportunities, such as closing or realigning the 130th Airlift Wing, are likely to intensify an already distressed situation.

Table 2. Yeager Trade Area Demographics (2000)

Yeager Trade Area	Yeager		United States
Population over 25	664,708		182,211,639
Population over 25, no HS Diploma or GED	164,144		35,715,625
% Pop over 25, no HS Diploma or GED	24.7%		19.6%
Population for whom poverty status was determined	947,443		273,882,232
Population Income below poverty in 1999	167,955		33,899,812
Poverty Rate	17.7%		12.4%
Source: 2000 US Census, Summary Tape File 3			

Population. For almost a quarter of a century the population of the Yeager air trade area has been in decline. As the table below indicates, population has declined by 10 percent, a reflection of the limited employment opportunities in the area. Approximately half of the West Virginia's population resides in this trade area.

Figure 1. Yeager Air Trade Area Population

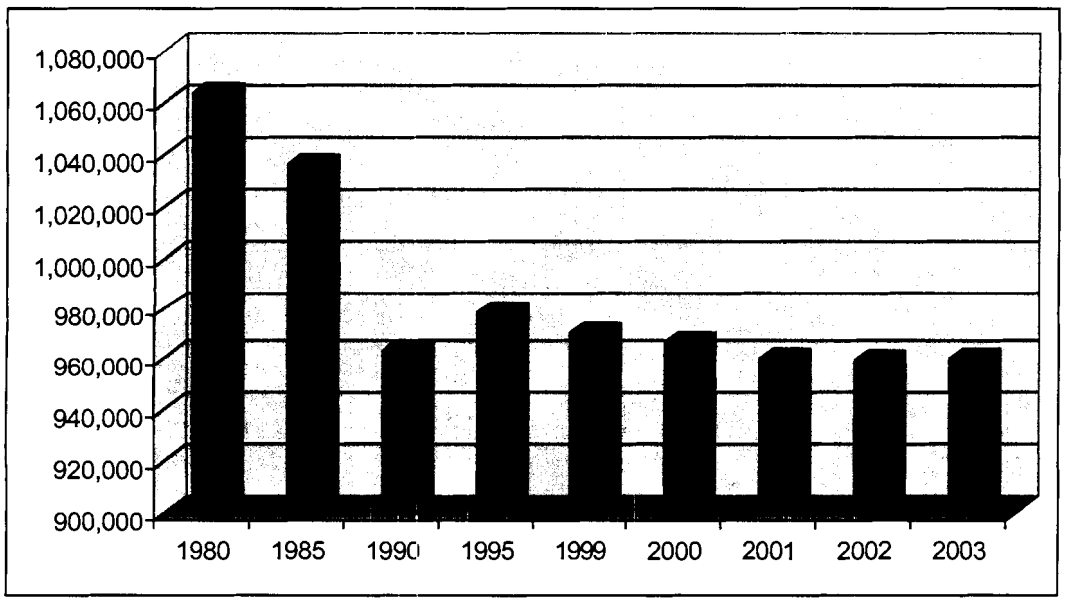


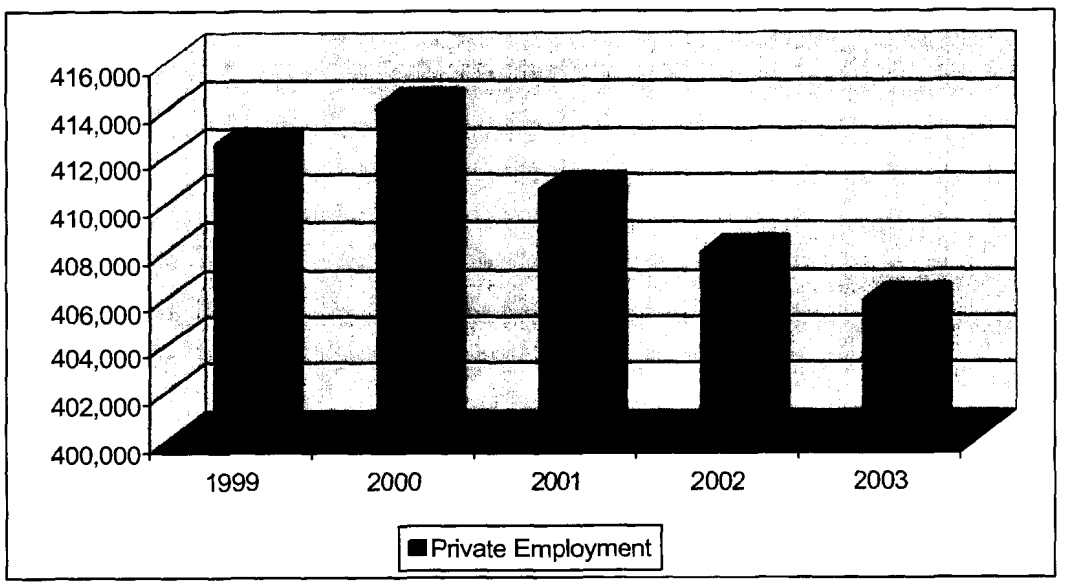
Table 3. Yeager Air Trade Area Population 1980 to 2003

Year	Population	Year	Population
1980	1,063,517	2000	966,154
1985	1,036,487	2001	960,073
1990	962,657	2002	959,540
1995	978,288	2003	959,693
1999	969,669		

Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

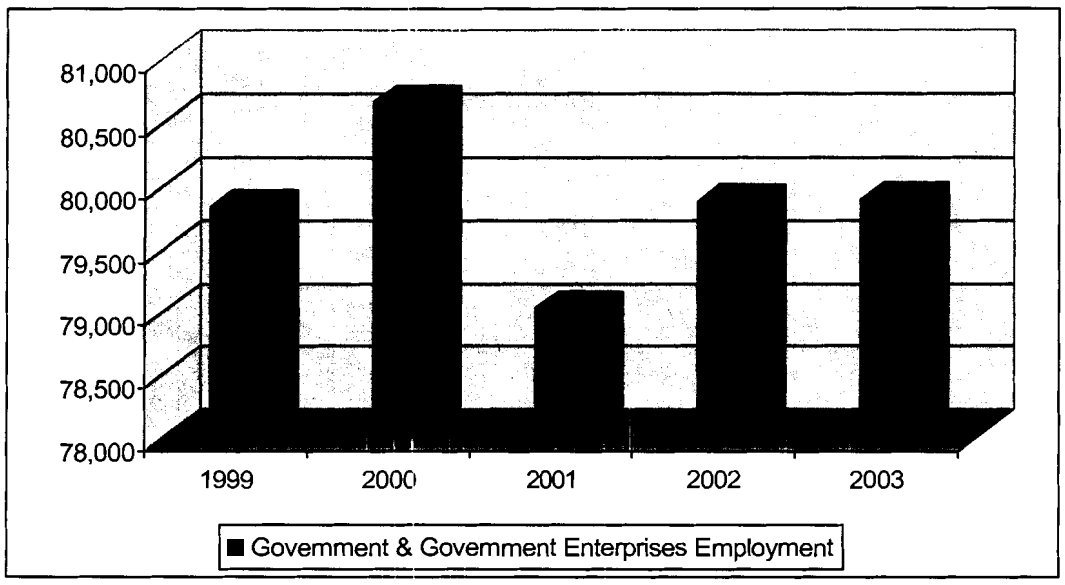
Employment. Private employment in the air trade area for Yeager Airport has declined over the same period. Gains in government employment have just offset the private decline, resulting in a stagnant labor market. This stagnation would make it difficult to accommodate any workers unemployed by the 130th Airlift reassignment.

Figure 2. Yeager Air Trade Area Private Employment, 1999 to 2003



Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

Figure 3.
Yeager Air Trade Area Government Employment, 1999 to 2003



Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

Table 4. Yeager Air Trade Area Employment, 1999 to 2003

	Non-farm Employment	Private Employment	Government Employment
1999	492,350	412,512	79,838
2000	494,829	414,165	80,664
2001	489,665	410,632	79,033
2002	487,849	407,958	79,891
2003	485,845	405,941	79,904
Change	-6,505	-6,571	66
Percent Change	-1.3%	-1.6%	0.1%

Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

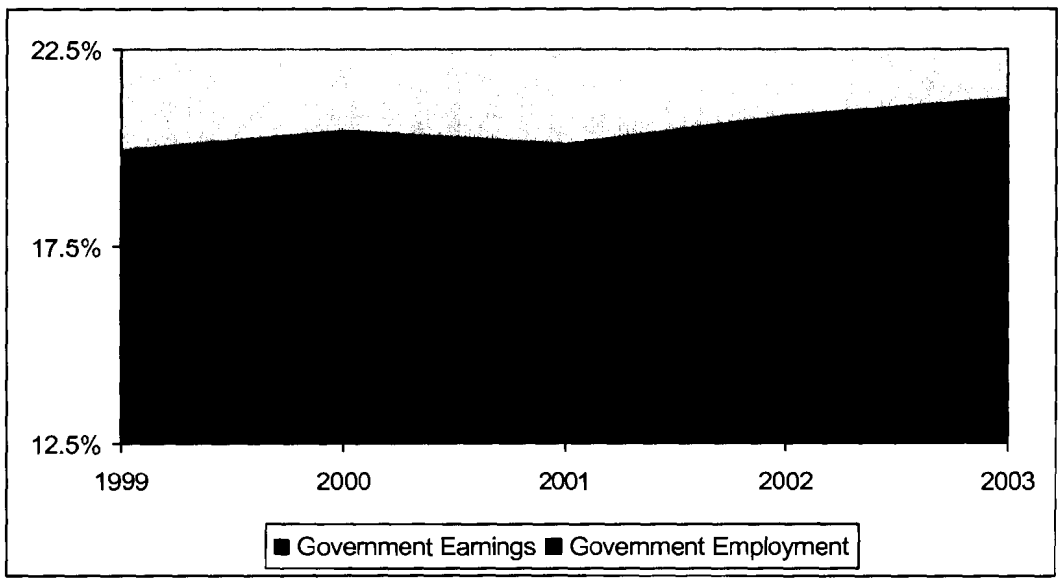
Earnings. Earnings in the air trade area have increased, but at a slower rate than nationwide. What the tables and graphs below indicate is that government earnings have increased significantly faster than have earnings in the private sector. The share of government earnings compared to private sector earnings has increased, demonstrating the lack of vitality in the private sector.

Table 5. Yeager Air Trade Area Earnings, 1999 to 2003

	Average Non-farm Earnings ($000s)	Average Private Earnings ($000s)	Average Government Earnings ($000s)
1999	$31,410	$30,014	$38,622
2000	$32,417	$30,825	$40,590
2001	$34,204	$32,592	$42,576
2002	$35,181	$33,320	$44,681
2003	$36,184	$34,104	$46,749
Change	$4,773	$4,090	$8,127
Percent Change	15.2%	13.6%	21.0%
Percent Change; Adjusted for Inflation	4.3%	2.9%	9.6%

Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

Figure 4. Percent of Government Earnings and Employment To Total Non-Farm Earnings and Employment



Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

Table 6.
Yeager Air Trade Area Earnings and Employment Percentages, 1999 to 2003

Yeager Air Trade Area	Private Earnings (% of Total)	Government Earnings (% of Total)	Private Employment (% of Total)	Government Employment (% of Total)
1999	80.1%	19.9%	83.8%	16.2%
2000	79.6%	20.4%	83.7%	16.3%
2001	79.9%	20.1%	83.9%	16.1%
2002	79.2%	20.8%	83.6%	16.4%
2003	78.8%	21.2%	83.6%	16.4%

Source: Regional Economic Information System
U.S. Bureau of Economic Analysis

2. Review of the Literature on the Impact of Base Closings

Over the past 15 years there have been several studies on the impact of base closures. Almost all of these have concluded that the economic damage from a base closure has been minimal. In some cases studies have indicated positive results in terms of increased economic activity after the closure.

None of these studies refer to the situation with the 130th Airlift wing or Yeager airport. Assuming that the same neutral or positive effects would happen if the 130th is reassigned is not supportable. The following discussion explains why theses studies should be rejected as indicative of what will transpire if the 130th Wing is deployed elsewhere.

The literature search revealed 14 studies of the economic results of base closures or realignments. The majority of these were case studies relating to specific situations (Dardia, et. al. 1996; Bradshaw 1995; General Accounting Office 1998, Siehl and Knight 1996, Department of Defense 1998, Department of Defense 2005). None of these case studies have any parallels to the situation with the 130th Air National Guard Wing or Yeager Airport. The unique characteristics of the locations of the cases in those studies would not allow the results to be transferable to Charleston, WV.

In recent years there have been three more analytical studies completed. These have used widely accepted econometric techniques. All three have looked at nationwide data and have not been limited to a few cases. All have presented a "macro-economic" analysis which is true for the whole but not necessarily true for any of the parts.

A longitudinal study for the US Bureau of the Census (Krizan 1998) looked at California base closings over a significant period of time. The study found that, after a couple of years, employment and incomes not only returned to pre-closure levels, but in some cases actually grew faster than in the surrounding area. An even more recent study (Hooker and Knetter 2001) studied base closures from 1971-94 and determined that adverse effects were limited to direct job loss from military transfer with per capita income being little effected. An additional study (Poppert and Herzog 2003) studied the base closings

of 1988, 1991, 1993 and 1995. Their findings were consistent with other studies that showed the long term effects on employment and income on average to be positive from base closures and realignments.

a. Why can these findings be dismissed as inapplicable to the 130th and Yeager?

1. The case studies only applied to specific unique situations none of which approach the conditions surrounding Yeager.
2. The case studies did not use random sampling techniques in selection of the observed base closings. This may have caused a bias in the results and reduces the validity of using these results for any specific installation.
3. None of the studies focused specifically on Air National Guard bases at joint use airports. At least one study (Hooker and Knetter) found the economic impact of closure of air force installations to be greater than the closure of other military facilities. They did not specifically address situations like Yeager's joint use arrangement.
4. The economic studies provided general conclusions about the total effect of all the closures covered in their research and did not relate to any particular cases. While for all closures taken as a whole the results may be positive, that does not mean that for any single closure that positive outcome can be predicted. As Hooker and Knetter noted," . . . while the average closure county doesn't suffer much economic harm, some do." (p 585) In one study of three California bases, the report was generally optimistic about the effects of base closure even though one of the case studies showed "consistently negative" impacts (Dardia p.43). By the author's admission, these "averaged" results may not be representative of any one situation and cautions that generalizations of these results to other situations of closure should not be made. The most recent DOD study concluded of the 387 closures and realignments, ". . . roughly one third of these locations (were) adversely impacted." (DOD 2005 p. 7)
5. Most of the closures took place in urban or other areas with strong labor markets that were capable of absorbing the displaced workers (DOD 2005). Again, Hooker and Knetter comment, "The shocks in rural areas are considerably larger. . ." (p. 586). The DOD Office of Economic Adjustment found a similar result noting, ". . . those in rural areas, remain especially hard hit". (DOD 2005, p.16)
6. In many of the cases, the bases represented only a tiny fraction of the economy of the area and did not, therefore, represent a significant economic loss.
7. For the majority of the closures there were one or more military bases or facilities nearby which often were expanded, absorbing at least some of the displaced civilian labor force. These other military facilities also continued to provide services such as BX and health care to military and retirees. These alternatives significantly reduced the impact of closure (Poppert and Herzog, p. 461)
8. In virtually every situation the closure or realignment was accompanied by a turnover of the base facilities at no cost to a local government or other entity to be used to attract new firms and industries (DOD 2005). This was important as many of these closures were in urban or other areas where there was a significant demand for land for development.

9. In addition, the successful cases often were the direct result of the Federal government providing substantial transition financial aid to the affected areas through the Defense Economic Adjustment Program. (DOD 1998 pp. 55-58, DOD 2005 pp. 8-10)
10. For many if not most of the cases investigated in the literature, economic growth in the effected region had been either robust or at least above the national average. Only a few of the areas had experienced the loss of jobs or had poverty rates above the national average at the time of closure or realignment. As noted above, this clearly does not describe the Yeager air trade area.

Most of the studies concluded that it was the turnover of the facilities at no cost and the substantial federal assistance which created the successful outcomes rather than market forces. The latest DOD report also commented, "Complete base redevelopment requires a long term effort, sometimes up to 20 years. . ." (2005 p.7)

The situations elsewhere do not speak to the Yeager situation.

1. There are no other military facilities nearby to absorb the unemployed.
2. West Virginia has one of the lowest per capita incomes in the nation and alternate job opportunities do not abound.
3. The economic growth rate is half the national average creating further problems in coping with the economic impacts of realignment.
4. Charleston is not a major urban center so the loss of what is one of its "major industries" will have a more profound impact than elsewhere.
5. The facilities will not be made available for alternate civilian employment.

Further, Yeager Airport is a shared facility with the 130th Airlift Wing. Loss of the Wing would have direct effects on the operations of the airport that would cause additional economic damage. No studies were found that have directly looked at the negative economic impact on civilian air travel when a joint use base is closed or realigned.

Finally, there has been no indication that the facilities will be turned over to Yeager, the City of Charleston, or some other entity at little or no cost to develop. The current plan is for the "reassignment" and not closure that would make the facilities unavailable for alternate use. This transfer could, as it has elsewhere, at least in part mitigated the problems.

Nor has there been any discussion of who will bear the cost of conversion of the Air Guard facilities for industrial use should the transfer take place. There also has not been any discussion, much less guarantees, that the federal assistance that was so vital to the successful transitions following closings elsewhere will be forthcoming.

3. Economic Evaluation of 130th Airlift Wing Reassignment

While it is impossible to predict the future results of reassignment of the 130th Airlift Wing, it is possible to take two approaches to investigating what this might mean.

Analytical Approach. This approach has been used in most of the early study reports that have been prepared for the Department of Defense and state governments. (Dardia et. al. 1966, US Department of Defense 1994, California Military base Reuse Task Force, 1994 and Innes et. al. 1994). It evaluates the relative importance of the base to the entire economy of the region. The approach focuses on changes that result from reductions in population, changes that are transmitted through declines in employment, and changes due to a reduction in housing demand.

These studies are all longitudinal looking at changes over a period of time after the closure. For proposed base closures or realignments, they offer few insights unless the cases are essentially similar to the base being considered for closure or reassignment. As noted above, none of the longitudinal studies reviewed approached similarity with the 130th Airlift Wing and Yeager situation.

Input Output Analysis. This analysis takes into account the full economic impact of the wages paid and spending made by the Charleston based 130th Airlift Wing. Salary and spending levels for bases such as the 130th Air Wing are dependent on military activity. For traditional guard members, salaries varied considerably between 2001, which represented a peacetime level of mobilization, and 2003, which represented a wartime level of mobilization. For this analysis, annual average wages for the FY 2001 to FY 2005 (estimated; actual as of May 2005) time period were used. These relative proportions were also used to estimate annual variation in related lodging expenses as explained in item #2 below.

In FY 2004 for example, the Base paid salaries of $55 million and had expenditures of $17.7 million. The negative impact to the state of West Virginia is the portion of wages and expenditures that are made locally. The majority of the impact of the realignment will be manifested as reductions in income to state residents. The remainder is from base spending. It is estimated that approximately 10% of base expenditures are made to West Virginia businesses. The speed by which the current holders of the realigned positions can find new jobs will determine the length of the impact.

The full economy-wide impact is estimated via calculation of industry and household spending multipliers. All multipliers are calculated using the IMPLAN regional input-output simulation model (IMPLAN Professional Version 2.0.1025).

1. Loss of Income

   The 130th Airlift Wing currently has 1,250 full and part-time positions. Realignment of the Wing is expected to result in the direct loss of 163 full-time personnel, 138 of which are civilian and 25 of which are military. These numbers are an adjustment to

the DOD, Base Closure and Realignment Report following the June 13 visit by the BRAC to the Charleston ANG base. Of the part-time traditional guardsmen that are members of the Wing, 447 are currently expected to lose their positions.

Information supplied by the ANG indicates that all 163 of the full-time jobs, and 90% of the traditional Guard positions, are held by individuals who currently reside in West Virginia. The impact of these jobs is $21.2 million in salaries, which is equivalent to about $15.3 million in disposable income (post-tax) spending.

The traditional guardsmen whose positions are not realigned will remain in the civil engineering and headquarters operation. It is presumed that most of the traditional guardsmen have regular jobs that complement their Guard duty pay and will retain those jobs. The loss of Guard-duty income is a loss of supplementary income to the economy.

Utilizing input-output analysis to estimate the economy-wide impacts of spending on behalf of these individuals adds an additional $4.2 million to the annual disposable income impact, for a total of $19.5 million in household spending. This is a multiplier effect of 1.28 (see Table below).

The impact of the proposed transfer of 25 firefighters to Martinsburg WV is not included in the total impacts due to a zero net change in state employment. However, the loss of these workers will impact the Yeager trade area. The estimated annual impact of these workers salaries is $875,000 in disposable income, which translates into $1.2 million in spending in the Yeager trade area.

2. Reduced Spending in the Local Economy

In addition to reductions in personnel, the realignment will necessarily be accompanied by reduced spending in support of base operations. The impacts of $1.6 million in local spending per year are accounted for in this analysis and are concentrated in the construction and lodging industries. These estimates do not include any spending impacts of the base BX operation, which had sales in excess of $500,000 in 2004, and is expected to remain open following the realignment. It is likely that most purchases to stock BX supplies are made outside West Virginia.

a. Construction and Maintenance Receipts: SRM (Sustainment, Restoration, and Modernization) construction receipts constitute the bulk of the 130th's spending in the local economy. This spending creates the most significant per dollar impact to the economy because of the large multiplier impact that this sector induces. Construction receipts induce additional local spending of 1.7 times the direct spending. It is uncertain what portion of these expenditures will continue following realignment. Local spending in FY 04 was approximately $1.1 million. Average annual spending is estimated at $890,000.

b. Hotel Receipts: Lodging expenses constitute another significant category of spending for the 130th in purchase of temporary lodging for its members for weekend and short-term assignments. Spending in 2004 was approximately $600,000 and average annual spending is estimated at $370,000. This spending induces additional local spending at a rate of about 1.3 times the direct spending.

c. Other: This category of spending covers miscellaneous items related to management of the Air Guard base. Most expenditures fall into the category of facilities management and include purchase of office furniture and equipment, and services such as electrical, security and utilities. The impact to the local economy of this type of spending is a multiplier of about 1.5. The full impact of this spending, evaluated here at $300,000 per year, is in all likelihood underestimated. However, given that the base will not close entirely, some of these expenditures will remain in the near-term.

d. Tuition Paid under the G.I. Bill: The 130th Air Wing has been responsible for an average annual payment of $100,000 in annual tuition to West Virginia higher education institutes over the past few years. This spending induces additional local spending at a rate of 1.6 times the tuition receipts.

Summary spending impacts from the loss of employee salaries and the four categories of spending are summarized in the table below. Total direct and indirect/induced (via other businesses and households) spending is estimated to be $22 million. The 204 jobs impacted are in addition to the 610 civilian, military and guard positions that would be reassigned.

Table 7. Estimated Annual Local Spending by the 130th AW

CATEGORY	Direct	Indirect and Induced	TOTAL	Jobs Impacted
Salaries	$ 15,261,261	$4,216,405	$ 19,477,666	168
Construction	$ 850,000	$ 603,500	$ 1,453,500	20
Lodging	$ 370,000	$ 136,900	$ 506,900	8
Other	$ 300,000	$ 150,000	$ 450,000	5
Higher Ed	$ 100,000	$ 62,010	$ 162,010	3
	$ 16,881,261	**$5,168,815**	**$ 22,050,076**	**204**

Direct Air Guard Realignments	610
Total Jobs Impacted	**814**

4. Impact on Yeager Airport Operations

There are additional negative consequences to the economy of the area from the realignment of the 130th Airlift Wing other than those which result from the direct impacts due to the loss of employment and jobs. These concern the impact on Yeager Airport operations. In the review of the studies on the impacts of base closings and realignments elsewhere, there were none at facilities that were joint use operations.

1. Closure of Tower

   The current plan calls for the closure of the tower from 10 p.m. to 7 a.m. Yeager is a feeder airport in the spoke and hub operations of the air carriers which serve it. Such early flights out and late flights in are essential as passengers make connections to other flights. Twenty six percent (26%) of all Yeager passenger traffic flies either in or out during the hours the tower is proposed to be closed.

   It is likely that at least some of these flights will be cancelled. Two air carriers have expressed concern about the tower closure. This is due to safety concerns about operations without a tower in less than desirable weather conditions and at night. Having tower services continuously available has been found to be a major factor in airport success (Weisbrod et.al. 1993). While it is impossible to indicate the loss of passenger traffic due to the flight reductions caused by tower closure, loss will occur. This is particularly true for leisure passengers who can choose to use alternative airports when the convenience of the early and late flights is reduced.

   There exists in the Yeager area potential for the further development of air cargo (Colography Group 1998). This analysis found a realistic estimate that air cargo in the future could support three B-727F cargo only flights each day in domestic service and one weekly DC-8F flight in international service. Most air cargo flies at night. Closure of the tower would mean that Yeager would become less competitive in attracting these flights and Charleston less attractive in securing the businesses which would avail themselves of air cargo shipping.

   In addition, the late flights terminate at Yeager and the crews stay in the Charleston area. This impetus to the area economy will also be lost. The expenditures for landing fees and for servicing of the aircraft will also be lost.

2. Increased Landing Fees

   Yeager airport will be forced to increase its landing fees due to the loss of services provided the Airport by the 130th Airlift Wing. These include the Fire/Rescue service and potentially the perimeter security services. The increased cost to Yeager Airport of the Fire/Rescue service is estimated by the airport to be $1.7 million per year with a start up cost of $7 million. For airport security, three additional officers would have to be hired at $43,000 a year for salary and benefits.

The current landing fees at Yeager are $1.20 per thousand pounds. The formula used to calculate landing fees indicates a one cent ($0.01) increase in landing fees for every $5,000 in additional airport costs. The annual cost (not including the $7 million in start up costs for the fire/rescue operation over a ten year period) would total an additional $3.66 per 1,000 lbs. A typical regional jet weighs 48,500 lbs. The landing fee for that aircraft would increase from $58.20 to $233.61, more than quadrupling the expense to the air carrier. Adding the fire service start-up costs could increase fees by as much as $4.88 per 1,000 lbs, to $295 for a typical aircraft, a five-fold increase in landing fees.

This increase in landing fees will reduce the competitiveness of Yeager Airport. How many of the current flights would be cancelled can not be determined. But considering that passenger loadings on many of the flights are currently only producing marginal if any profits per flight, some will be cancelled. There is a possibility that two current air carriers would cancel at least some flights if such a fee increase were enacted.

While Yeager airport might, as an alternative, try to absorb some of the additional costs rather than passing them on to the air carriers, the availability of hub airports within feasible driving distance creates a competitive environment that would significantly reduce their ability to so do. Yeager is currently not highly profitable having assumed significant debt to finance new parking areas and terminal improvements.

Summary

There is significant damage to the economy of the Yeager Airport air trade area from the reassignment of the 130th Airlift Wing. While a civil engineering and headquarters presence will remain, most of the civilian and military jobs will be transferred with a loss of 610 direct jobs and an additional 204 indirect jobs due to the reduced level of spending.

The State will lose some $22 million in total spending, both direct and induced. Most of this loss will incur in the Charleston, WV region. This region is currently experiencing rates of poverty above the national average and per capita income well below. Employment is essentially static. It will be difficult, if not impossible, to compensate for either the loss of spending or jobs.

Since the 130th Airlift Wing is located on a joint use airport at Yeager, there will be a second set of impacts to the economy of the region from the reassignment. The closing of the tower will place in jeopardy the current night and early flights out of Yeager. This amounts to over one quarter of the Yeager passenger traffic. The potential for development of air cargo will also be reduced.

Additional costs will be placed on Yeager. Since the 130th Airlift Wing furnishes Fire/Rescue services to the airport, these would become Yeager's responsibility. The resulting costs will be reflected in increased landing fees that will erode Yeager's competitive position. The possibility of reduced flights due to the increased fees is a distinct possibility. Although security services are currently expected to continue to be provided by the Air Guard, loss of these services is considered a potential outcome that is not fully evaluated here.

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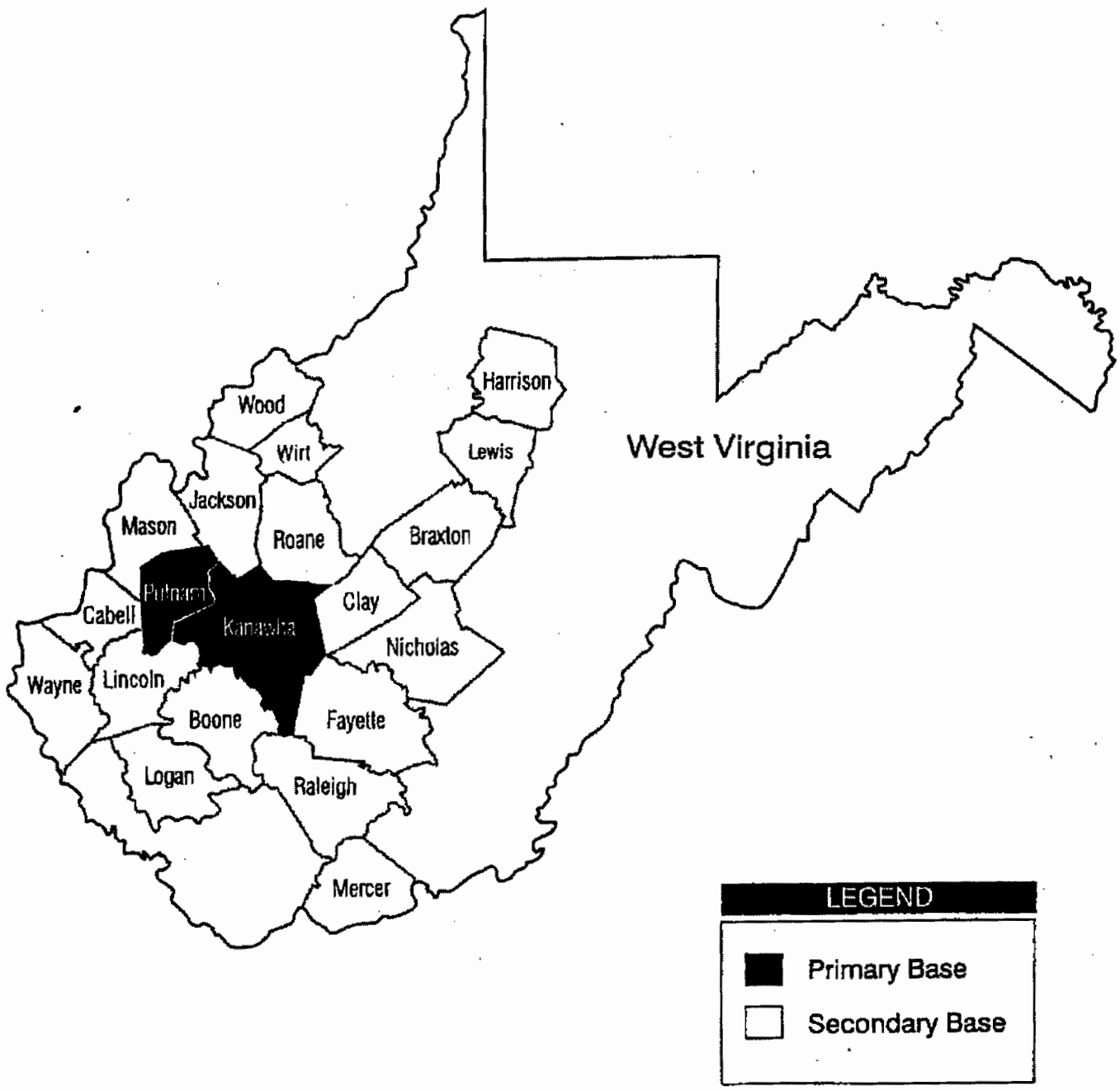
West Virginia
Harrison
Wood
Lewis
Wirt
Jackson
Mason
Roane
Braxton
Putnam
Clay
Cabell
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Wayne
Lincoln
Boone
Fayette
Logan
Raleigh
Mercer
LEGEND
Primary Base
Secondary Base

130TH RESOURCE GUIDE

2005

"Delivering Freedom with Courage"

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A Message from the Commander, 130th Airlift Wing

As we face the challenges of a new era for our nation's security, the 130th Airlift Wing continues to be ready, reliable, and relevant to our nation's military.

This Resource Guide will introduce you to the 130th Airlift Wing and provide you with relevant information concerning our mission, force structure, and local economic impact. It by no means is a comprehensive document and it cannot by itself truly reflect the outstanding work that the men and women of the 130th Airlift Wing do each and every day.

The members of the 130th Airlift Wing are always there for the community, the state, and the nation. Since 1947, our people have served with distinction on seven continents. From the Korean War to Operation Iraqi Freedom, our people have answered each and every call. Whether transporting troops throughout the theater, evacuating the wounded from the field, dropping humanitarian relief to the local population, helping our neighbors recover from devastating floods or fighting back forest fires; the 130th is there – Delivering Freedom with Courage.

Sincerely,

Timothy L. Frye
Colonel, WVANG
Commander, 130th Airlift Wing

Our Heritage

The 130th Airlift Wing has a long and distinguished history of exceptional performance.

The WV Air National Guard was originally formed on 7 March 1947 as the 167th Fighter Squadron at Clark Field just outside of Saint Albans, WV. The unit flew a mix of aircraft in its early stages, but by spring of 1948 was flying the P-51 Mustang, which continued to be the unit's primary aircraft until 1955. The Air Guard moved to the newly constructed Kanawha Airport in Charleston, WV on 3 November 1947.

On 10 October 1950, the WV Air National Guard was activated for the Korean conflict, where it flew more than 1000 combat missions over the Korean peninsula. For its efforts, the squadron was awarded the prestigious Presidential Unit Citation. WV Air National Guard members were awarded 2 Silver Stars, 55 Distinguished Flying Crosses, 42 Bronze Stars, and 326 Air Medals. The fighter squadron returned home on 10 July 1952 after 21 months of overseas duty.

In October 1950, the squadron was designated the 167th Fighter Interceptor Squadron and relocated to Martinsburg, WV. Subsequently, the 130th Troop Carrier Squadron was formed at Kanawha Airport. From 1950 to 1960, the 130th primarily flew the C-45 Expeditor and the C-46 Commando transport aircraft.

Occasionally, the unit has been tasked to perform unusual missions, such as the SA-16/HU-16 Albatross, which the 130th flew from 1956 until 1963. This amphibious aircraft could take off and land on water.

In June 1960 the unit was redesignated the 130th Air Commando Group flying the C-119 Boxcar (pictured to the right), the U-10 Courier, and the U-6 Beaver. Shortly thereafter, the unit became known as the 130th Special Operations Group.

In 1975, the unit received C-130E aircraft and was named the 130th Tactical Airlift Group.

Known today as the 130th Airlift Wing, the unit operates eight modern C-130H2/H3 aircraft on missions throughout the world. These aircraft include modern avionics, radar, and aircraft defensive systems. They are considered to be one of the best tactical airlift aircraft in the world.

Aircraft Flown by the 130th Airlift Wing

T-6	Mar 1947-Oct 1955	Trainer
P-47	Jun 1947-Jun 1948	Pursuer
B-26	Sep 1947-Oct 1950	Bomber
P/F-51	Apr 1948-Oct 1955	Pursuer/Fighter
C-46	Oct 1955-Jul 1958	Cargo Transport
C-45	May 1955-Aug 1960	Cargo Transport
SA-16/HU-16	May 1956-Jun 1963	Transport
C-47	Aug 1963-Nov 1967	Cargo Transport
C-119	Jun 1963-Sep 1975	Airlift
U-10	Jun 1963-Nov 1974	Special Operations
U-6	Aug 1965-Aug 1967	Special Operations
C-54	May 1967-Sep 1971	Personnel Transport
C-130E/H	Oct 1975 – Present	Tactical Airlift
C-26 (GSU)	Jan 2002 – Present	Counterdrug

Significant Moments in our Recent History

The 130th Airlift Wing has experienced many significant events and unique firsts in its history.

We were the first Air National Guard unit to deploy outside the United States for an annual training exercise when we deployed to the Panama Canal Zone in February 1965.

The 130th Airlift Wing was the first Air National Guard unit to participate in Operation Bright Star, a multi-national war-fighting exercise, near Cairo, Egypt in 1981. That same year, it achieved another milestone by being the first Air National Guard unit to participate in Red Flag exercises at Nellis AFB, NV. Red Flag is a multi-national exercise sponsored by the US Air Force to test the Air Force's ability to conduct combat operations in concert with friendly forces from other nations. It was seen as a major accomplishment, at the time, for an Air National Guard unit to participate in Red Flag.

Subsequent integration with the active duty Air Force continued in 1987 as the 130th Airlift Wing became the first Air National Guard unit to undergo an Operational Readiness Inspection in concert with an active duty unit. True to its heritage, the 130th Airlift Wing's inspection earned an Excellent rating from the Inspector General.

The 130th Airlift Wing was one of the first units to volunteer for service in Operation Desert Shield/Desert Storm.

In August 1990 a group of volunteers from the 130th Airlift Wing deployed to Al Ain Airbase in the United Arab Emirates to serve as the lead unit for a contingent of four other Air National Guard C-130 units who had also volunteered for deployment. When they arrived they found little more than an airstrip surrounded by sand and initiated efforts to prepare the base for combat operations. In October 1990, the 130th Airlift Wing was formally activated and more unit members were sent to Al Ain Airbase bringing the total number of personnel deployed to 353. Eventually, Al Ain became the largest C-130 airbase in the theater with more than 45 aircraft assigned.

Shortly following activation, a contingent of aircraft and personnel from the 130th Airlift Wing forward deployed to King Fahd Airbase, Saudi Arabia. Their mission was supporting the now famous "left hook" maneuver envisioned by General Schwarzkopf by moving troops, equipment, and supplies to their jumping-off points.

This dangerous work was critical to the success of General Schwarzkopf's plans. Working conditions at both Al Ain and King Fahd were very difficult. Wing personnel had to endure 115 degree heat and relentless sandstorms.

Throughout these hardships, they continued to do their jobs in an exemplary manner. At the height of the ground war, 130th Airlift Wing personnel were taking off and landing aircraft every 10 minutes, 24 hours a day, working 2 weeks straight.

In June 1991, the unit returned home to a hero's welcome. Those who were present that day will never forget the formation fly-by as all 8 aircraft returned home to Charleston, WV with their loved ones safely on board.

Operation Desert Shield/Desert Storm is seen as a watershed moment for the 130th Airlift Wing and the Air National Guard. From 1990 on, the active duty relied more and more on the Air National Guard for support. Instead of being solely a reserve force, the Air National Guard quickly transformed to an equal partner with the active duty in meeting worldwide contingency missions.

The 130th Airlift Wing deployed to Germany in support of Operation PROVIDE PROMISE and the Bosnian Airlift in July 1993. Two aircraft and two crews provided life-sustaining supply missions to the people in the besieged city of Sarajevo. The unit deployed to Rwanda, Africa in support of Operation SUPPORT HOPE in August 1994. There, two aircraft and two crews provided humanitarian airlift to Rwanda from Entebbe, Uganda and Goma, Zaire for more than 30 days. Wing personnel also deployed to Prince Sultan Airbase, Saudi Arabia in support of Operation SOUTHERN WATCH from January through March 1996 and again from April through June 1998. Both of these deployments supported the forces that enforced no fly zones in Iraq.

The events of 9-11 had a dramatic impact on us all. As the nation mourned our losses, the 130th Airlift Wing prepared for war. Immediately following the attacks, the unit maintained aircraft and aircrews on alert status to support the relief efforts in New York and Washington D.C.

The 130th Security Forces Squadron was activated in early October 2001 to provide security for many active duty Air Force installations and for deploying aircraft under Phoenix Raven. Phoenix Raven is a specialized security program where highly trained security specialists, resembling regular aircrew members, protect deployed aircraft operating from remote airfields which lack normal security. Eventually, Security Forces' mission would be expanded to include deployments to the Southwest Asia in support of Operations IRAQI FREEDOM and ENDURING FREEDOM. Their activation lasted for a full two years. Our Security Forces personnel continue to perform volunteer rotations to the Persian Gulf region and Phoenix Raven deployments. They are considered to be one of the busiest groups in the 130th Airlift Wing.

In March 2003, the 130th Airlift Wing deployed six aircraft and 260 personnel to Tabuk Airbase in the western desert of Saudi Arabia to support Operation IRAQI FREEDOM. Once again, members of the 130th Airlift Wing found little more than an airstrip surrounded by sand and immediately joined efforts to prepare the base for combat operations. Overcoming base material and service shortages, the members of the 130th Airlift Wing were prepared to fly combat missions within 48 hours of arrival.

When the war began, the pace of operations was relentless. Most missions were flown at night using night vision goggles. Maintenance and Aerial Port personnel also used night vision goggles to launch and recover aircraft - a stark contrast to how operations were conducted during Operation DESERT SHIELD/DESERT STORM.

Combat missions were dangerous and intense. Aircrews were constantly threatened by surface to air missiles while flying and mortar and rocket fire when on the ground. 130th Airlift Wing aircrews participated in the assault on the H1 airfield in western Iraq by transporting Special Forces troops and equipment to the airfield during the attack. They also airlifted

supplies to Marines near Fallujah, Iraq as they prepared to assault that city. The unit also played a role in the rescue of PFC Jessica Lynch, ferrying Special Forces troops that assisted with her rescue into Talil Airbase, Iraq.

Over time, the 130th Airlift Wing operated from virtually every airfield in Iraq including Baghdad International and Mosul. When major combat operations ended, the 130th Airlift Wing's deployed flying and maintenance operations moved to Al Udeid Airbase, Qatar. From Qatar they supported the transition from combat operations to coalition support operations.

Personnel from the 130th Aerial Port Squadron were deployed to Al Udeid in June 2003 to establish an airlift hub and distribution center. Eventually, all cargo destined for Iraq or Afghanistan was processed through Al Udeid. During June 2003 through August 2003, 130th Aerial Port personnel processed 52,500 passengers and over 29,000 short tons of cargo on 7,100 aircraft. They reduced a pre-existing backlog of 528 pallets of cargo down to 52 during their deployment.

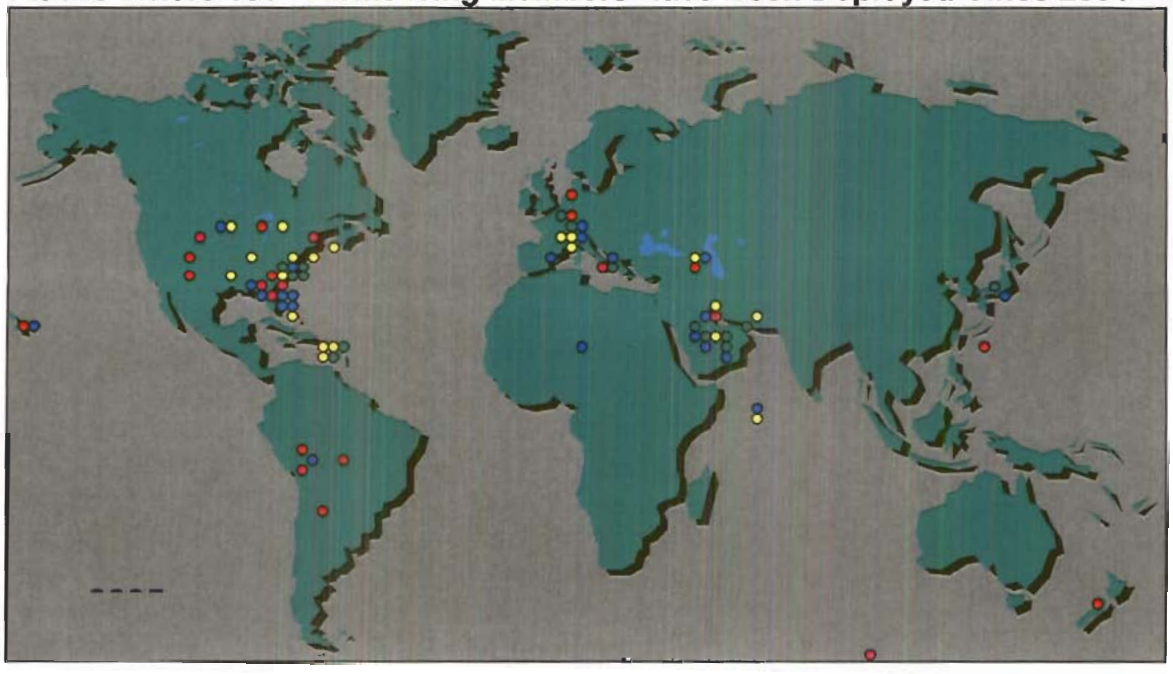
The 130th Airlift Wing returned home in September 2003 to a hero's welcome by family, friends, and local community supporters. Unfortunately, this homecoming was short-lived for some members of the 130th Airlift Wing as they redeployed that October to Masirah Island, Oman conducting operations in support of Operation ENDURING FREEDOM. Since that time, the 130th Airlift Wing has maintained a constant presence in the Persian Gulf region, flying over 8600 combat hours since March 2003.

The events following September 11 are often seen as defining moments for the unit. The 'Global War on Terrorism' has seen not only heavy deployments by our Operations, Maintenance, and Aerial Port personnel, but for the first time, large groups of combat support personnel (such as Transportation, Security Forces, Civil Engineers, and Services) were tasked for deployment.

Serving Our Nation

If you compare the history of conflicts involving the United States with the history of the 130th Airlift Wing, it's clear that our unit has been at the forefront of each of these events. The 130th Airlift Wing remains relevant to our military and our nation. We serve our nation as citizen airmen, bringing combat airlift and combat support services to the fight. Our missions range from flying combat sorties into Iraq and Afghanistan to providing humanitarian medical assistance to remote villages in Peru or supporting the National Science Foundation in Antarctica.

Places Where 130th Airlift Wing Members Have Been Deployed Since 2001



Deployment Statistics for the 130th Airlift Wing from 1999-2005

Year	# of Personnel	# of Aircraft	# of Deployments
1999	779	10	40
2000	963	16	110
2001	532	11	50
2002	1068	12	45
2003	569	9	39
2004	580	18	58
2005 to Present	384	6	22

Recent Major Deployments by the 130th Airlift Wing	
2005	Counterdrug surveillance missions in Columbia
2003	Operation Enduring Freedom/Iraqi Freedom (note this mission continues to this day) Operation Deep Freeze, Antarctica
2001	Operation Noble Eagle (Homeland Defense in the wake of 9-11) Partnership for Peace humanitarian medical assistance deployment, Peru
2000	Provided counter-terrorism training to Malaysian police agencies
1999	Operation Joint Forge, Ramstein Airbase, Germany
1998	Operation Southern Watch, Prince Sultan Airbase, Saudi Arabia
1996	Operation Southern Watch, Prince Sultan Airbase, Saudi Arabia Operation Joint Endeavor, Ramstein Airbase, Germany
1995	Operation Support Hope, Somalia and Rwanda

The 130th Airlift Wing provides airlift support to the Department of Defense through its parent command, Air Mobility Command (AMC). These missions provide airlift for cargo and personnel from all of the armed services throughout the United States.

Over the last 10 years, the 130th Airlift Wing continually exceeded the Mission Capability Rate standard set by the National Guard Bureau by four percent

The 130th Airlift Wing has a counter-drug flying operation, Detachment 1, at the Benedum Airport in Bridgeport, WV that flies the C-26 aircraft. This aircraft has been specially modified to provide airborne counter-drug surveillance services in support of national, state, and local law enforcement agencies. They have helped law enforcement agencies seize thousands of pounds of illegal drugs. They also provide aerial imagery of flood-devastated areas to WV State Emergency Management leaders so that flood relief agencies can better focus their efforts.

The 130th Airlift Wing participates in the National Guard Bureau Partnership for Peace Program with its partner nation Peru. The unit hosted two visits by Peruvian military leaders to the Charleston area. In 2001, the 130th Medical Group deployed 15 personnel providing humanitarian medical assistance to remote Peruvian villagers, many of whom had never seen a doctor in their lives. During this visit, Medical Group personnel treated over 1000 villagers for various health and dental problems.

Serving Our State

The 130th Airlift Wing serves our state by providing training for local fire departments, safeguarding our citizens and property in times of emergency, fighting forest fires on our state lands, and helping communities recover from devastating floods.

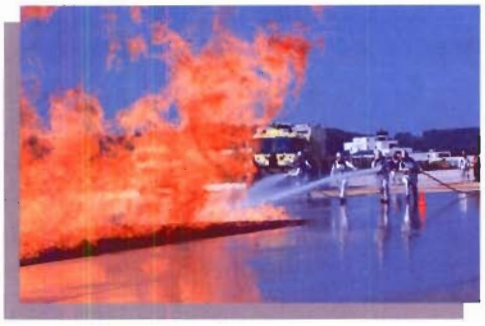
Recent Natural Disaster Relief Operations Conducted by the 130th Airlift Wing

2005	Flooding in Northern West Virginia – provided 41 personnel who deployed to 8 counties (in addition the C-26 unit provided aerial imagery in support of the relief effort)
2004	Flooding throughout West Virginia – provided 151 personnel who deployed to 10 counties
2003	Flooding in Central and Eastern West Virginia – provided 4 personnel who deployed to 3 counties Forest Fire Fighting in Central and Eastern West Virginia Evacuation of Meadowbrook Nursing Home – unit received Governor's Award
2002	Flooding in Southern West Virginia – provided 88 personnel who deployed to 11 counties

We provide vital airlift support for the Civil Support Team and the WV Army National Guard. The 130th Airlift Wing provides the ideal capability to quickly deploy the Civil Support Team in response to domestic terrorism incidents in the United States—60% of the US population lives within two hours flying time from Charleston, WV. The unit also provides security, intelligence, medical, and chaplain personnel to the Civil Emergency Response Force in the event of a mass casualty incident.

The 130th Airlift Wing directly supports the WV Army National Guard by deploying/redeploying soldiers for exercises/contingencies and airdropping Special Forces. The wing's airlift service to the Army National Guard supports the wing's flying training and reduces the WV Army National Guard's transportation expense per soldier.

Serving Our Community



The 130th Airlift Wing has a tremendous impact on the Kanawha Valley and the surrounding area. Our Fire Department maintains extremely high levels of training and readiness and provides complete fire rescue services for Yeager Airport and its local community. Many members are trained as Paramedics, Emergency Medical Technicians (EMT), rescue technicians, and certified hazardous materials technicians. Fire rescue services provided by the 130th Airlift Wing provide an estimated savings of $1.7 million annually to the Yeager Airport Authority.

The 130th Airlift Wing Fire Department also responds to medical and fire related emergencies in the area surrounding Yeager Airport. Through mutual aid agreements with Kanawha County and the city of Charleston, the Metro 911 Center routinely utilizes our Fire Department to augment its existing emergency services. During 2004, the unit's Fire Department responded to 246 calls of which 87 were off-base emergency calls. Typical emergency calls include aircraft emergencies, search and rescue, structural fires, motor vehicle accidents, and medical emergencies. The Fire Department also has the ability to conduct containment and cleanup services for hazardous materials incidents at surrounding chemical plants.

The 130th Airlift Wing Security Forces are seen as experts in counter-terrorism, vulnerability assessments, and occult crimes within the local law enforcement community. Security Forces have taught numerous classes for local law enforcement on these subjects in addition to classes on mitigating terrorist options, defensive tactics, and terrorist use of Weapons of Mass Destruction. The unit's Security Forces and Intelligence section serve as members of the regional FBI Joint Terrorism Task Force. The Fire Department and Security Forces also participate as members of the Kanawha County Emergency Planning Committee.

The 130th Airlift Wing hosts Charleston STARBASE Academy. The mission of STARBASE is to provide innovative, educational outreach programs for fifth-graders in unconventional settings that focus on science, math, technology, positive personal goal setting, substance abuse prevention, and teamwork skills. They accomplish this by tying educational goals to an aerospace theme thus making it more interesting for students. Approximately 55% of Kanawha County fifth-graders participate in STARBASE each year.

We also serve our local community by supporting the Drug Abuse Resistance Education (DARE) Program, Youth Leadership Camp and the Mountaineer Challenge Academy at Camp Dawson, WV, Special Olympics, Shop with a Cop, the annual Salvation Army Toy Drive, and numerous base tours for school age children. In 2004 alone, the unit conducted tours for over 700 people. We support numerous parades and civic events, provide an honor guard and funeral detail for veterans' funerals, and recognize community leaders who contribute to their community.

We built and use the Mini C-130, an approximate one-third scale motorized model of the C-130, for nationwide Air National Guard and wing recruiting. The Mini C-130 not only helps recruiting, but also supports educating young people about the military as well as circulating an anti-drug message to our youth.

Area employers and political leaders demonstrate their support for their National Guard employees and their resolve to bolster the defense of the United States through membership in Employer Support of the Guard and Reserve (ESGR). The 130th Airlift Wing provides Center of Influence Flights (COI) for many employers of National Guard members which help educate employers about the wing's mission and their role as citizen soldiers and airmen.

The unit conducts orientation flights for an average of 600 high school and college Reserve Officer Training Corps (ROTC) participants each year.

The 130th Airlift Wing, in a partnership with West Virginia University, provides research and testing support for the OCULUS initiative. OCULUS, the Latin word for eye, is a full featured airborne intelligence gathering and surveillance system designed specifically for the C-130 to enhance homeland defense.

Unit Awards and Notable Achievements

Air Force Outstanding Unit Award (Awarded by the Air Force for exceptionally meritorious service or exceptionally outstanding achievement that clearly sets the unit above and apart from similar units)

March 2003	–	May 2003	(awarded with Valor)
January 1990	–	December 1991	(awarded with Valor)
January 1988	–	December 1988	
January 1987	–	December 1987	(130th Aerial Port Squadron)
January 1986	–	December 1986	(130th Aerial Port Squadron)
January 1985	–	December 1985	(130th Aerial Port Squadron)
January 1984	–	December 1985	
July 1973	–	December 1974	
January 1971	–	December 1971	(130th Communications Flight)

The 130th Aerial Port Squadron has the distinction of the being the only Air Force unit to have been presented the Air Force Outstanding Unit Award three times in a row.

Four-time Spaatz Trophy recipient (Awarded annually to the overall most outstanding Air National Guard flying unit)

John J. Plesch Flight Safety Award 1997, 1998
The 130th Airlift Wing has completed over 161,000 hours and 43 years of accident free flying.

Curtis N. "Rusty" Metcalf Trophy 1998, 1999
Awarded for the highest standards of mission accomplishment

Air Force Chief of Staff Team Excellence Award
First Air National Guard unit to be presented with this award

West Virginians of the Year Award 2001

The 130th Aerial Port Squadron has twice earned a first place award during the Worldwide Rodeo Competition in the Engines Running Onload/Offload category.

In 1999, the 130th Security Forces Squadron was named the Air National Guard's Outstanding Security Forces Unit.

Major Inspection Results

Health Services Inspection – 2005 – Excellent

Unit Compliance Inspection – 2004 – Excellent

Aircrew Standards and Evaluation Visit – 2004 – Mission Ready

Exercise Readiness Safeguard – 2002 – Volk Field, WI – Inspecting Cadre rated the 130th Airlift Wing as "one of the top 3 units seen to date" in the Ability to Survive and Operate (ATSO) category

Operational Readiness Inspection – 1997 – Excellent

Our People

The 130th Airlift Wing is home to nearly 1000 proud citizen airmen. We are your neighbors, co-workers, students, educators, business owners, and community leaders. We are a family tradition whose members span multiple generations of West Virginians. The face of the 130th Airlift Wing is the face of West Virginia.

Unit Strength

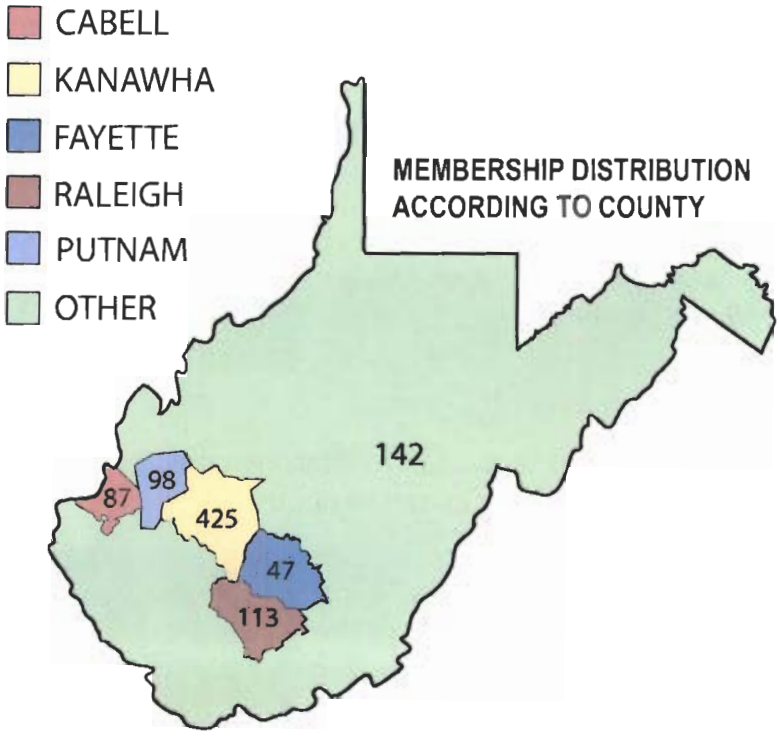
Currently manned at 103.9%, the 130th Airlift Wing consistently ranks in the top 10 out of 91 Air National Guard units in unit strength.

Retention

The Wing's retention rate of 95% consistently ranks in the top 10 in the nation out of 91 Air National Guard units.

Educational Background

The 130th Airlift Wing makes available a highly educated workforce for the local community. All officers have at least a bachelor's degree with 21% of officers earning a master's degree or higher. Seventy-seven percent of enlisted airmen have at least one year of college experience.



Over 90% of the members of the 130th Airlift Wing live in West Virginia, a testament to our Mountaineer heritage.

Our Aircraft

The 130th Airlift Wing operates 8 Lockheed C-130H2/H3 Hercules aircraft that have modern avionics, radar, and aircraft defensive systems.

C-130 HERCULES

Mission

The C-130 Hercules is considered to be the best tactical airlift aircraft in the world. It is capable of operating from rough dirt landing strips and is the prime aircraft for air-dropping troops and equipment into hostile areas. The C-130 operates throughout the U.S. Air Force supporting the varied missions Air Mobility Command and Air Force Special Operations Command. They fulfill a wide range of missions during peace and war performing a diverse number of roles including airlift, Antarctic ice resupply, aeromedical airlift, weather reconnaissance, aerial spraying, and fire-fighting duties for the U.S. Forest Service and natural disaster relief missions.

Features

Using its aft loading ramp and door the C-130 can accommodate a wide variety of oversized cargo from utility helicopters and six-wheeled armored vehicles to standard palletized cargo and military personnel. In an aerial delivery role, it can airdrop loads up to 42,000 pounds or use its high-flotation landing gear to land and deliver cargo on unimproved landing strips in austere locations.

The flexible design of the Hercules enables it to be configured for many different missions, which allows one aircraft to perform the role of many. Much of the special mission equipment added to the Hercules is removable, allowing the aircraft to revert back to its cargo delivery role when desired. Additionally, the C-130 can rapidly accept types of cargo including palletized equipment, floor-loaded material, airdrop platforms, container delivery system bundles, vehicles and personnel or aeromedical evacuation.

General Characteristics (C-130 H2/H3)

Primary Function: Global airlift
Contractor: Lockheed Martin Aeronautics Company
Power Plant: Four Allison T56-A-15 turboprops; 4,591prop shaft horsepower
Length: 97 feet, 9 inches (29.3 meters)
Height: 38 feet, 10 inches (11. 9 meters)
Wingspan: 132 feet, 7 inches (39.7 meters)
Cargo Compartment: length, 40 feet (12.31 meters); width, 119 inches (3.12 meters); height, 9 feet (2.74 meters). Rear ramp: length, 123 inches (3.12 meters); width, 119 inches (3.02 meters)
Speed: 366 mph/318 ktas (Mach 0.52) at 20,000 feet (6,060 meters)
Ceiling: 23,000 feet (7,077 meters) with 42,000 pounds (19,090 kilograms) payload.
Maximum Takeoff Weight: 155,000 pounds (69,750 kilograms)
Maximum Allowable Payload: 42,000 pounds (19,090 kilograms)
Maximum Normal Payload: 36,500 pounds (16,590 kilograms)
Range at Maximum Normal Payload: 1,208 miles (1,050 nautical miles)
Range with 35,000 pounds of Payload: 1,496 miles (1,300 nautical miles)
Maximum Load: 6 pallets or 74 litters or 16 CDS bundles or 92 combat troops or 64 paratroopers, or a combination of any of these up to the cargo compartment capacity or maximum allowable weight.
Crew: Five (two pilots, navigator, flight engineer and loadmaster)
Aeromedical Evacuation Role: Minimum medical crew of three is added (one flight nurse and two medical technicians). Medical crew may be increased to two flight nurses and four medical technicians as required by the needs of the patients.
Unit Cost: approximately $70 Million
Date Deployed: C-130H, Jun 1974

Our Facilities

The 130th Airlift Wing maintains a host of modern facilities suited for both its flying and flying support missions. The total value (FY 2005) of the facilities located at the 130th Airlift Wing exceeds $32 million dollars.

The facilities that are occupied by the majority of the base populace are less than 12 years old. The 130th Airlift Wing has added a new Combat Arms Training Center, Dining Facility, and Civil Engineering building during the last 3 years.

Our Economic Impact

(1 October 2003 - 30 September 2004)

- Oganizations supported at Charleston ANG Base:

-- West Virginia STARBASE Program
-- 35th Civil Support Team
-- West Virginia Counter Drug
-- C26 Flying Unit at Clarksburg
-- Chemical, Biological, Nuclear, Radiological and High Yield Explosive Response Force Package

- Total employees/salaries:			**1250**	**$**	**54,998,586**
-- Federal Civilian	184	$ 9,634,103			
-- State	51	$ 2,520,664			
-- AGR's	83	$ 6,717,366			
-- Traditional	923	$ 35,793,715			
-- Other	9	$ 332,738			

- Total other expenditures:			**$**	**17,746,746**
-- Supplies	$	11,529,727		
-- Contract Services	$	272,082		
-- SRM	$	1,283,469		
-- Other	$	3,918,568		
-- Construction	$	632,000		
-- Tuition Assistance	$	110,900		

- Total job impact:

-- 296 indirect jobs created as a result of operations at Charleston
-- $9,445,360 payroll from these indirect jobs
--- Multiplier to determine # of jobs from AFMAN 65-506 Economic Impact Analysis
--- Average salary ($31,910) from http://www.bls.gov/oes/current/oes_1480.htm
---- $31,910 X 296 = **$ 9,445,360**

- Total Economic Impact on local area:			**$ 82,190,692**
-- Salaries	$	54,998,586	
-- Other	$	17,746,746	
-- Indirect jobs	$	9,445,360	

WE ARE WORTH OVER $1.5 MILLION PER WEEK ON THE LOCAL ECONOMY

West Virginia National Guard Education Encouragement Program Participation by Unit Members

Spring Semester 2005

Number of Students: 170
Tuition Dispersed: $264,374

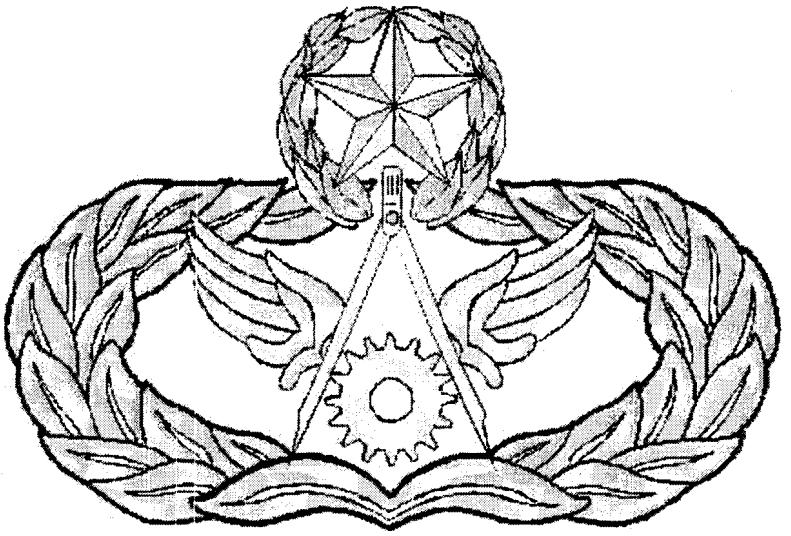
Fall Semester 2004

Number of Students: 157
Tuition Dispersed: $225,966

Top 5 Schools Attended by 130th Airlift Wing Members

Marshall University
Mountain State University
West Virginia State University
West Virginia University
Bluefield State College

ANG Standard Facility Requirements



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ANGH 32-1084

30 November 2003

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This handbook implements and supplements Air Force Handbook (AFH) 32-1084, *Standard Facility Requirements Handbook*, for the Air National Guard (ANG). It contains guidelines and information for facility requirements in support of Air National Guard missions. Space allowances for facilities are authorized in accordance with the criteria in this handbook. Installations will use the facility space allowances listed herein by Real Property category codes to assign occupancy and to program new and replacement facilities.

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Chapter 1. GENERAL

1.1 Purpose

This handbook is a compilation of standards, references, and detailed technical guidance provided to assist in the facility programming process.

The guidelines and criteria contained in this handbook are applicable to the Air National Guard (ANG) and implement Department of Defense (DoD) construction criteria directives. Guidance for criteria not included in this handbook can be found in AFH 32-1084, *Standard Facility Requirements Handbook*, and must be validated by ANG/CEP.

1.2 Facility Space Allowances

1.2.1 Fundamentals. The criteria listed in this handbook are the basis for space allowances at ANG facilities. Space requirements for each facility, existing or planned, will be programmed and justified by the base civil engineer (BCE) on the basis of the authorized ANG unit strength (i.e., the strength of the unit(s) assigned, not the resident wing or other tenants) and the quantity and type of equipment, materials, and supplies required.

ANG/CEP will validate all space allowances.

1.2.2 Specificity. Facility space allowances for commonly used category codes are listed in these four tables, located after this handbook's text sections:

Table 1, *ANG Combat Readiness Training Center Facility Requirements Programming Guide*
Table 2, *ANG Civil Engineering RED HORSE Facility Requirements Programming Guide*
Table 3, *ANG Civil Engineering Regional Training Site (RTS)*
Table 4, *ANG Civil Engineering Regional Equipment Operators Training Site (REOTS)*

Additional guidance, descriptions, and explanations of selected category codes are provided later in this handbook. Less common category codes that do not appear in this publication may be approved by ANG/CEP.

Where necessary, Air National Guard Engineering Technical Letters (ANGETLs) supplement this handbook with specific and detailed instructions for base civil engineers.

1.2.3 Computation. All facility space allowances are expressed in terms of gross area, unless noted otherwise. Gross area is computed to the outside of enclosure walls. For these computations:

a. Include full area for any area used for intended purposes, to include (but not limited to): basements; above-grade floors; all permanently affixed mezzanines; mechanical equipment (heating/utility) rooms; penthouses; enclosed passages, walks, porches, and balconies; and totally enclosed, raised loading platforms.

b. Include half area for covered (but not fully enclosed) slabs, entries, passages, walks, porches, and balconies, as well as covered/uncovered, below-grade loading facilities.

c. Exclude areas for roof overhangs; utility tunnels; exterior or interior stairs and elevator shafts; exterior uncovered walks, ramps, stoops, and paved terraces; generally enclosed space (if used for

storage, it counts as 'full' scope); and door pockets for hangar-type facilities. Also exclude mezzanines that provide utility, mechanical, or other direct support requirements for the facility.

d. Overhead factors (shown as a percentage in breakout tables of larger facilities in later sections of this handbook) represent space dedicated to circulation, mechanical/electrical rooms, restrooms/latrines, wall thickness, telecom closets, and janitor closets.

1.3 Composite and Joint-Use Facilities

Composite and/or multi-story facilities are encouraged. Each functional area will be within authorized scope and fully justified on the basis of assigned equipment and/or personnel.

Composite facilities units with like category codes can be programmed for the use of two units, the use of different functions (different category codes) within the same unit, or other combinations of units and function. General guidance regarding functions (category codes) is as follows:

1.3.1 Same Category Code. These facilities consist of shared ANG facilities with the same function. Space requirements are calculated by adding more space for equipment, libraries, storage, and files to the basic personnel space needed by one unit. Additional space for offices, classrooms, restrooms, hallways, etc., can seldom be justified.

For a dual unit, an increase of 10 percent is normally made to the basic authorization for a single unit, under the assumption that units do not drill on the same weekend.

1.3.2 Different Category Code. These facilities consist of shared ANG facilities with different functions. Their space requirements are calculated by adding the scope authorizations for different category codes.

1.4 Multi-Service, Joint-Use Facilities

Where the ANG is co-located with another government agency, joint-use projects will be programmed to the maximum extent practicable. Facilities such as medical training, dining halls, fuel storage, operation centers, communication centers, small arms ranges, munitions storage facilities, warehousing, vehicle maintenance, civil engineer storage, security forces storage, LOX/LIN storage, and fire stations will be considered for joint use.

a. Justification must be provided for constructing separate facilities.

b. Programming procedures for joint-use facilities are provided by AFI 32-1012.

c. Where joint use of facilities is possible, a significant percentage of decrease in space should be considered due to areas of common use (such as classrooms, restrooms, utility rooms, etc.).

1.5 Functional Criteria Guidance

Specific justification is required for each proposed facility. Emphasis will be placed on the following considerations to ensure the maximum use of resources:

a. Readiness. Facilities will be constructed to make the greatest contribution to unit readiness and to promote economy and efficiency.

b. Existing Facilities. In consideration of economy and efficiency, maximum use will be made of existing facilities to partially or fully satisfy proposed facility requirements.

c. Flexibility. Facilities will be designed to accommodate occupancy by new units, reorganized units, and units with new missions, with minimal additional construction.

d. Economical Design. Facilities will be designed with consideration for their life-cycle cost (which includes initial construction, as well as maintenance thereafter).

e. Standards of Construction. New facilities will generally be of permanent construction, and the quality of construction will be consistent with the corresponding lifecycle cost analysis. However, new facilities at training areas and facilities of undetermined useful life may be of permanent, semi-permanent, or temporary construction.

f. Other Facilities. Other facilities required on an infrequent basis (and for which criteria are not specifically provided herein) will be established using the criteria for similar facilities, adjusted to the actual mission requirements as validated by ANG/CEP.

g. Administrative Space. Wherever possible, administrative space should consist of open, pre-wired workstations, with only the minimum essential number of enclosed offices constructed. Open office design and use of systems furniture will be considered. Interior construction should provide flexibility for future interior renovations.

h. Administrative Support Space. Includes area(s) adequate to house any computer equipment, filing systems, copy/reproduction machinery, telephone and LAN systems and publication libraries related to the function.

i. Storage. Facilities will include adequate space for the storage of equipment in the proper locations (home station, mobilization station, central storage, etc.).

j. Special-Use Space. Includes classrooms, conference rooms, auditoriums, locker rooms, area(s) for vending and physical training, and any other space that may be appropriate for the function.

k. Service Support Space. Includes janitor and storage areas, mechanical and electrical rooms, and loading docks / receiving areas.

l. Consistency. New construction and modification of facilities must be consistent with the approved General Plan / Master Plan and with Anti-Terrorism / Force Protection (AT/FP) criteria.

m. Airfield Criteria. See UFC 3-260-1, *Airfield and Heliport Planning and Design*, for airspace and airfield criteria.

n. Redundant Space. Space shall not be constructed in more than one location for the performance of the same function by an individual or unit, unless specifically justified and authorized by ANG/CEP.

o. Weather Extremes. For purposes of these criteria, ***severe winters*** are those with 30 or more days per year of 10 degrees Fahrenheit or lower, or with an average January temperature of 20 degrees Fahrenheit or lower (as determined from two 10-year weather data bases); ***heavy snowfall*** is more than 24 inches / 610 millimeters annually; and ***extreme heat*** means an average daily maximum temperature above 88 degrees Farenheit / 31 degrees Celsius for 30 or more days per year.

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Chapter 2. CATEGORY GROUP 11 AIRFIELD PAVEMENTS

2.1 General Criteria

The airfield is that portion of an air base used for aircraft taxiing, takeoffs, landings, servicing, and parking. The designation 'airfield pavements' applies to runways, taxiways, aprons, arm/disarm pads, paved shoulders, and paved overruns.

Requirements for items in this group for ANG units located at Air Force bases or other DoD installations are determined in the same manner as for active units (use UFC 3-260-1, *Airfield and Heliport Planning and Design*). Adherence to these requirements at other locations is not always possible, due to the multiplicity of situations under which the ANG operates.

Where ANG units are located at civil airports, Federal Aviation Administration (FAA) Advisory Circular criteria AC150/5300-13 will normally be used for the construction of runways and taxiways, and for associated work, as well as for airfield clearance criteria.

2.1.1 Environmental Concerns. When planning and siting munitions storage/maintenance and airfield pavements, consider storm water runoff and the control of pollutants being discharged into storm water (including de-icing operations) to maintain compliance with storm water and discharge permit requirements. Also comply with applicable requirements under both the federal Clean Water Act (CWA) and AFI 32-7041, as well as with all federal, state, and local storm water permit requirements.

2.1.2 Explosives Safety. When planning aircraft hangars, shelters, and support facilities where personnel or explosives are involved, ensure that explosives safety standards DoD 6055.9-STD and AFM 91-201 are considered. These standards are designed to protect facilities and personnel from the damaging effects resulting from the accidental or unintended detonation of munitions and explosives.

2.1.3 Pavement Thickness. Airfield pavements support aircraft under six major weight categories: heavy, modified heavy, medium, light, shortfield, and auxiliary. Requirements for heavy, modified heavy, medium, and light loadings are based on a mix of aircraft traffic, whereas requirements for shortfield load conditions and auxiliary airfields are based on F-15, C-17, or C-130 aircraft only.

Specific design criteria for airfield pavements are contained in UFC 3-260-1.

Additions or extensions to existing pavement are normally constructed to match the strength of the existing pavement (if adequate for the programmed mission and aircraft) or to the appropriate standard. If the existing pavement is inadequate, strengthen as necessary.

2.2 Commercial Airport Criteria

ANG installations on commercial airports or at FAA-controlled airfields must apply FAA criteria AC150/5300-13 to facilities such as runways and taxiways that are jointly used by military and civilian aircraft. Facilities for military use only (such as aircraft parking aprons, arresting barriers, arm/disarm aprons) must apply Air Force / DoD criteria.

2.3 Runway Criteria

2.3.1 Category Code 111-111, Runway. The runway is the paved surface provided for normal aircraft takeoffs and landings. This category code also includes the runway's grading and drainage, its lateral safety zones, and its clear zone (see UFC 3-260-1, Chapter 3).

Runway length shall be sufficient to accommodate all aircraft programmed or those that may use the base. Performance curves for each aircraft are contained in the performance data section of the 'Dash One' (-1) series of the aircraft's technical orders; the aircraft's design loads are found in its specific Standard Aircraft Characteristics Book.

Runway length is based on the aircraft's takeoff or landing, whichever requires the greater distance. The designer of the runway shall coordinate with the ANG/OPS community on the most accurate and economical methods to determine individual runway lengths, based on the aircraft each base supports. The authorized width of a runway also depends on the aircraft programmed for the base.

Special consideration must be made for BAK 14 arresting barriers on runways.

Aircraft Type	Minimum Runway Length	Runway Width
A-10, F-15, F-16, F-22, C-130; trainer aircraft	8,000 FT / 2,438.4 M	150 FT / 45.7 M
C-5, C-17, KC-10, KC-135	10,000 FT / 3,048.0 M	150 FT / 45.7 M

2.3.1.1 Runway Clear Zone. Runway clear zones are ground areas required at both ends and alongside each runway. Essentially unpaved safety borders/buffers surrounding the extended runway, they possess a high potential for accidents and their use is restricted to be compatible with aircraft operations. Quite often, this compatibility results in the waivered construction of taxiways, aprons, pads, or other necessary structures within the designated 'clear' zone. Projects should be programmed to eliminate all airfield waivers.

See Chapter 3 of UFC 3-260-1 for runway clear zone layout configurations, and Attachment 4 of the same document for permitted land uses within the clear zone.

Clear Zone Length	Clear Zone Width
3,000 FT / 914.4 M *	3,000 FT / 914.4 M **

* From each end of the runway, measured along the extended runway centerline
(a full-length runway overrun would extend 1,000 FT / 304.8 M into the clear zone at both ends of the runway).
** Centered on – and measured at right angles to – the extended runway (runway overrun).

2.3.2 Category Code 111-115, Paved Overrun. The runway overrun is an extension of the runway pavement (excluding shoulders) designed for possible short landings, unobstructed run-out of aircraft arresting systems, or any other extended takeoff run or landing rollout situation that would exceed the length of the basic runway.

Approach lighting systems located in the overrun area should be semi-flush mounted.

Runway Type	Overrun Length	Overrun Width
Heavy, modified heavy, medium-light, auxiliary	1,000 FT / 304.8 M (at each end of runway)	Equal to runway
Assault field	300 FT / 91.4 M (at each end of runway)	Equal to runway

2.3.3 Category Code 116-116, Assault Field. A special paved strip provided to train cargo aircraft crews in airlifting operations within a limited space, i.e., a 'short' field.

Aircraft Type	Minimum Runway Length	Runway Width
C-130, C-17	3,500 FT / 1,066.8 M (4,000 FT / 1,219.2 M preferred)	60 FT / 18.3 M (75 FT / 22.9 M, no taxiways)

2.4 Taxiway Criteria

2.4.1 Category Code 112-211, Taxiway. Taxiways are the pavements provided for the ground movement of aircraft. They connect the parking and maintenance areas of the airfield with the runways, as well as provide access to hangars, docks, and various parking aprons and pads.

Main taxiways are normally aligned parallel to runways to facilitate aircraft ground movement during takeoffs and landings on the runway; connecting runways should take the most direct/economical route.

Runway / Taxiway Class	Taxiway Width
Heavy, modified heavy, med-light, auxiliary	75 FT / 22.9 M
Assault field	50 FT / 15.2 M, with 70 FT / 21.3 M turning radius
Towed aircraft only	Lesser of 50 FT / 15.2 M, outside landing gear width + 10 FT / 3.1 M

2.5 Apron Criteria

2.5.1 Category Code 113-321, Apron. Aprons are paved areas provided for aircraft parking, servicing, loading, and unloading. Apron space is required for operational aircraft, alert aircraft, and cargo aircraft.

Active duty AF criteria should be followed, but omit apron space for transient aircraft unless an exception is approved by ANG/CEP. (Adherence to this requirement is not always possible, due to the multiplicity of situations under which the ANG operates.)

a. Apron Size/Configuration. There is no standard apron size. Aprons are individually designed to support certain aircraft and missions at specific installations. Detailed dimensions are determined by the size, type, and number of aircraft that require parking and maneuvering space, the type of activity the apron serves, the physical characteristics of the project site, and the objectives of the installation master plan. Aircraft size, taxi lane widths, and required wingtip separations are the basis for design.

b. Apron Allowances. A proper apron allowance is the amount of space required to afford maximum operational efficiency with the minimum amount of paving. The following paragraph describes a method for estimating apron requirements.

c. Estimating New Apron Requirements. For broad planning purposes, multiply the wingspan of the selected aircraft by its length, then multiply the product by a factor of 5.3 (4.4 for fighter-type aircraft) to determine the apron requirement for a single unit of the aircraft chosen. For example:

C-130 = 132.6 FT (wingspan) x 99.5 FT (length) = 13,194 SF x 5.3 (factor) = 69,928 SF / 7,770 SY
= 40.4 M x 30.3 M = 1,226 SM x 5.3 = 6,496 SM

Apron requirement for 10 C-130 aircraft = 10 x 7,770 SY / 6,496 SM = 77,700 SY / 64,960 SM

Do not use this method to estimate the number of aircraft – especially large aircraft – that can park on an existing apron. Many variables (such as length, width, and taxi lane locations) determine an existing apron's suitability to support specific aircraft types. At existing bases, develop a conceptual parking plan for the anticipated mix of aircraft types to determine the total apron area requirements.

The following table presents approximate planning factors in square yards / square meters (SY / SM) for new aprons with regard to different numbers of various aircraft types, based on the most efficient parking layout (contact ANG/CEP for specifics):

Aircraft	PAI 4	PAI 6	PAI 8	PAI 10	PAI 12	PAI 15	PAI 18	PAI 24
A-10						19,920 / 16,665	23,305 / 19,420	32,270 / 26,890
F-16, RF-16						8,500 / 7,107	10,200 / 8,500	14,110 / 11,760
F-15						14,250 / 11,914	17,100 / 14,240	23,665 / 19,720
C-130J-30	17,575 / 14,645		52,730 / 43,940		87,875 / 73,230			
C-5			163,235 / 136,030		293,825 / 244,855			
C-17			86,810 / 72,340					
KC-135			63,190 / 52,655	84,250 / 70,210		101,100 / 84,530		
KC-10			106,740 / 88,950	124,540 / 103,780				
HH-60G		8,130 / 6,775						

Note: All planning factors are approximate and include deductions for authorized covered spaces, but no allowance for BAI or transient aircraft – exact space to be determined by ANG/CEP-approved parking plan.

d. Aprons for Operational Aircraft. Operational aircraft are parked on mass aprons, strip aprons, or (where authorized) on dispersed stubs. To determine how many operational aircraft require apron space, begin with 100 percent of the primary aircraft inventory (PAI) as established by official documents, then subtract 1) the number of aircraft (such as alert aircraft) parked on separate aprons, 2) the number of aircraft in maintenance hangars or docks under normal maintenance schedules, and 3) any aircraft parked elsewhere on existing pavement of a suitable nature and location.

Pavement for backup aircraft inventory (BAI) will be provided on a case-by-case basis.

e. Aircraft Parking. On a typical mass apron, aircraft are parked in rows and spaced according to the dimensions referenced in the table below, which permits the aircraft to move in and out of parking slots under their own power:

Aircraft *	Wingspan	Length	Height	Min. space between wings when parked **
A-10	57.5 FT / 17.6 M	53.3 FT / 16.3 M	14.9 FT / 4.6 M	10.0 FT / 3.1 M
B-52	185.0 FT / 56.4 M	156.6 FT / 47.8 M	40.8 FT / 12.5 M	25.0 FT / 7.7 M
C-5	222.7 FT / 67.9 M	247.8 FT / 75.6 M	65.1 FT / 19.9 M	25.0 FT / 7.7 M
C-17	170.0 FT / 51.9 M	173.0 FT / 52.8 M	55.1 FT / 16.8 M	25.0 FT / 7.7 M
C-130	132.6 FT / 40.5 M	99.5 FT / 30.4 M	38.5 FT / 11.8 M	20.0 FT / 6.1 M
C-130J-30	132.6 FT / 40.5 M	112.8 FT / 34.4 M	38.5 FT / 11.8 M	20.0 FT / 6.1 M
HH-60G	53.7 FT / 16.4 M	64.9 FT / 19.8 M	17.5 FT / 5.4 M	53.7 FT / 16.4 M
KC-10	165.3 FT / 50.4 M	182.1 FT / 55.5 M	58.1 FT / 17.7 M	50.0 FT / 15.3 M
KC-135	130.8 FT / 39.9 M	136.2 FT / 41.6 M	41.7 FT / 12.8 M	50.0 FT / 15.3 M
C-137	145.7 FT / 44.4 M	147.7 FT / 45.1 M	41.8 FT / 12.8 M	20.0 FT / 6.1 M
E-3	145.7 FT / 44.4 M	152.9 FT / 46.6 M	42.2 FT / 12.9 M	20.0 FT / 6.1 M
E-4	195.7 FT / 59.7 M	231.8 FT / 70.7 M	64.3 FT / 19.6 M	20.0 FT / 6.1 M

Aircraft *	Wingspan	Length	Height	Min. space between wings when parked **
F-15	42.8 FT / 13.1 M	63.8 FT / 19.5 M	19.2 FT / 5.9 M	10.0 FT / 3.1 M
F-16	32.8 FT / 10.0 M	47.6 FT / 14.5 M	16.4 FT / 5.0 M	10.0 FT / 3.1 M
F-22	44.5 FT / 13.6 M	62.1 FT / 19.0 M	16.6 FT / 5.1 M	10.0 FT / 3.1 M
'Alert' aircraft	all	all	all	50.0 FT / 15.3 M
Not listed above	< 110.0 FT / 33.6 M	any	any	10 FT / 3.1 M to 25 FT / 7.7 M
Not listed above	110.0 FT / 33.6 M >	any	any	25 FT / 7.7 M to 50 FT / 15.3 M

* Dimensions vary for different models and configurations of aircraft.
** Does not apply during contingencies; see current aircraft Technical Order.

Setback distances for peripheral or through taxilanes are set to the largest wingspan of frequently using aircraft, i.e., if C-130s taxi past a ramp of F-16s, base the taxilane on the C-130's wingspan.

Parking arrangements should occupy the least amount of pavement possible per parked aircraft. As an example, changing the apron parking arrangement for 8 aircraft from 4 rows of 2 aircraft to 2 rows of 4 aircraft can reduce pavement requirements by 20 percent. (See Chapter 6 of UFC 3-260-1 for various aircraft parking layouts.)

Another factor to consider when developing aircraft parking plans is aircraft exhaust wake velocity. Check the particular aircraft performance guide for exhaust velocity and temperature ranges to assess safe distances for nearby facilities and personnel.

f. Taxi Lanes. Apron interior and peripheral taxi lanes must exceed the required width for aircraft parked in the area if larger aircraft must taxi through en route to docks, hangars, or pads. Confine such width variation to the fewest taxi lanes possible.

Peripheral taxi lanes are not provided along the rear edge of aprons unless required for access to docks or hangars, or to meet a critical need for alternate circulation routes for aircraft operating on the apron. On peripheral taxi lanes, aircraft are expected to taxi along the outer 75 FT / 22.9 M of pavement; therefore, wing overhang areas beyond this strip are not paved.

Min. Wingtip Clearance for Taxiing . . .	Wingspan less than 110 FT / 33.6 M	Wingspan 110 FT / 33.6 M or more
In taxi lanes, apron interior or peripheral	30 FT / 9.2 M	50 FT / 15.3 M
In lanes, between parked aircraft	20 FT / 6.1 M	30 FT / 9.2 M
In lanes, between parked aircraft (transient)	25 FT / 7.7 M	30 FT / 9.2 M

g. Hangar Access Aprons/Taxiways. Hangar access aprons provide access to the hangars from the parking apron and allow free movement of aircraft to the various hangar maintenance facilities. Hangar access aprons should be provided as a supporting item for each authorized hangar, and sized for the type of hangar and aircraft to be accommodated.

Generally, hangar access aprons should be as wide as the hangar doors and extend from the edge of the apron to the hangar door. Hangar access should be coded as 'taxiway'.

h. Other Apron Variables. These include such items as the arrangement of refueling outlets, explosives clearances, required clearances to fixed or mobile objects (see UFC 3-260-1, Chapter 6), and the siting or placement of blast deflectors.

2.5.1.1 Alert Pad. Often referred to as an 'alert apron', the alert pad is an exclusive paved area where armed aircraft can park with immediate, unimpeded access to a runway. Once an alert has been declared, these aircraft must be on the runway and airborne on short notice; locating the alert pad adjacent to a runway end will allow the alert aircraft to proceed directly from the apron to the runway threshold without interruption from other traffic. Alert pads are authorized in conjunction with alert shelters, where operationally justified.

Alert pads must be situated close to the runway threshold to allow alert aircraft to be airborne within the time constraints stipulated in their mission statements. Their preferred location is on the side of the runway opposite normal traffic patterns to allow aircraft on the alert pads the necessary direct and unimpeded runway access.

a. Pad Size. Alert pads should be sized to collectively park all the aircraft potentially on alert. Pad dimensions should vary with the length and wingspan of the aircraft to be served, and with the munitions carried by the aircraft. Minimum wingtip clearances are also to be observed at all times.

b. Tiedown and Grounding Points. Tiedown/mooring eyes and electrical grounding points must be provided on each alert pad, as described in UFC 3-260-1, Attachment 12.

c. Clear Zone. Alert pads must not be located within the runway clear zone.

d. Airspace Imaginary Surfaces. Aircraft parked on alert pads must not project into airspace imaginary surfaces.

e. Alert Pad Access/Egress. Alert pads/aprons should be designed for either taxi-in/out or push-back parking. Taxi-in/out parking is preferred, since alert aircraft can quickly taxi into position under their own power; however, back-in parking requires less paved area.

f. Dedicated Taxiway. Provide a single, non-intersected, dedicated taxiway from each alert pad to its adjacent runway so alert aircraft can, when needed, move directly to a takeoff position with no traffic interruption.

g. Munitions Safety. Armed aircraft on alert pads should be located to minimize any damage from the unexpected discharge or explosion of munitions. Explosives safety site plans must be prepared in advance, in accordance with UFC 3-260-1, Attachment 10.

2.6 Shoulder Criteria

2.6.1 Category Code 116-642, Paved Shoulders. The shoulders of runways, aprons, taxiways, and airfield pads are paved to protect the shoulder areas against jet blast, reduce maintenance of the unpaved shoulder area, support aircraft outrigger gear, or accommodate snow removal equipment, aircraft service vehicles, and emergency vehicles. Unprotected (unpaved) shoulders without vegetation that are continually exposed to jet blast will release soil, stones, and other debris which can cause severe damage when ingested by jet engines.

a. Runway Shoulders. Unprotected areas adjacent to runways and overruns are susceptible to erosion caused by jet blast. Shoulders minimize the probability of serious damage to an aircraft in the event the aircraft leaves the runway pavement.

Paved shoulders are required adjacent to all runways. The minimum paved shoulder width allows the runway edge lights to be placed within the paved portion of the shoulder, and also reduces the potential of foreign object damage (FOD) to aircraft. The unpaved shoulder should be graded to prevent water from 'ponding', i.e., accumulating on the adjacent paved area (shoulder and runway); the dropoff next to the paved area will prevent accumulating turf from creating ponds, as well.

Runway Function	Total Shoulder Width *	Paved Shoulder Width *
General use	200 FT / 61 M	25 FT / 7.7 M
Trainer aircraft	200 FT / 61 M	10 FT / 3.1 M
Fighter aircraft	200 FT / 61 M	10 FT / 3.1 M
Paved assault field	200 FT / 61 M	10 FT / 3.1 M

* Along each side of the runway and the entire length of paved overruns.

b. Taxiway Shoulders. Shoulders are provided along a taxiway to support and allow an aircraft to recover if it should leave the paved taxiway. Paved shoulders prevent erosion caused by jet blast or prop wash, support the occasional aircraft that may wander off the taxiway, support vehicular traffic, and reduce maintenance of unpaved shoulder areas.

Shoulders for fixed-wing taxiways may be paved or unpaved, depending on the agency, class of runway, and type of aircraft. Airfields that support wide-bodied aircraft may require soil stabilization beneath outer engines. See UFC 3-260-1, Table 5.1, for fixed-wing taxiway shoulder criteria, including widths and grading requirements to prevent 'ponding' (the accumulation of storm water).

Paved shoulders are also required adjacent to rotary-wing taxiways to prevent blowing dust and debris due to prop wash. Criteria for rotary-wing taxiway shoulders (including layout, width, cross slopes, and grading requirements) are presented in UFC 3-260-1, Table 5.3.

Taxiway Function	Total Shoulder Width	Paved Shoulder Width
General use	50 FT / 15.3 M	25 FT / 7.7 M
Trainer aircraft	50 FT / 15.3 M	10 FT / 3.1 M
Fighter aircraft	50 FT / 15.3 M	10 FT / 3.1 M
Paved assault field	25 FT / 7.7 M	10 FT / 3.1 M
Helicopters *	50 FT / 15.3 M	25 FT / 7.7 M

* ANG helicopters normally share the 'general use' taxiway, i.e., same as C-130 aircraft.

c. Apron Shoulders. Paved shoulders are provided around the perimeter of an apron to protect against jet blast and foreign object damage (FOD), support blast deflectors, and provide space to store support equipment; to prevent ponding on the edge of the shoulder, the adjacent turf should be graded to promote drainage. Criteria for apron shoulders are presented in UFC 3-260-1, Table 6.1.

Apron Function	Total Shoulder Width	Paved Shoulder Width
C-5, E-4, Boeing 747-series (along entire apron)	50 FT / 15.3 M	50 FT / 15.3 M
Other fighter, cargo, tanker aircraft (entire apron)	50 FT / 15.3 M	25 FT / 7.7 M
Jet blast deflector (between deflector and apron edge)	50 FT / 15.3 M	- varies -

d. Pad Shoulders. Pad shoulders are constructed of existing soils, thoroughly compacted and covered with turf or a soil binder.

2.7 Pad Criteria

Pads are relatively small paved areas that serve specific functions such as dangerous cargo loading, helicopter parking, aircraft power check, and aircraft warm-up and holding.

2.7.1 Category Code 116-661, Arm/Disarm Pad. Used for both the arming of aircraft immediately before takeoff and the disarming ('safing') of any weapons retained or not expended upon the aircraft's return, arm/disarm pads should be located adjacent to runway thresholds and sited such that armed aircraft are oriented towards the least populated areas or towards revetments.

a. Pad Size. Each arm/disarm pad should be capable of servicing four aircraft at the same time. Pad dimensions may vary with the length and wingspan of the aircraft to be served. Typical layouts of arm/disarm pads are shown in Figures 6.20, 6.21, 6.22, and 6.23 of UFC 3-260-1.

Arm/disarm pads to handle more than 4 aircraft simultaneously must be operationally justified.

b. Tiedown and Grounding Points. No tiedown/mooring eyes or electrical grounding points are required on arm/disarm pads.

c. Inhabited Building Distance Clear Zone. As a general rule, an 'inhabited building distance clear zone' (IBDCZ) of ±5° of arc on each side of the heading of the parked aircraft and 5 MI / 8 KM to its front – both measured from the aircraft's nose – should be maintained. No occupied building is to be in this clear zone (nor should any other building, if possible, to prevent damage from accidental weapon firing). In addition, no aircraft or vehicles should be parked within the IBDCZ.

The IBDCZ may cross a runway, taxiway, or runway approach so long as any passing aircraft will be visible to the arm/disarm quickcheck crews, who can then suspend their operations while the aircraft is within the clear zone.

If an adequate clear zone cannot be achieved, use earth revetments or sloped surfaces as a barrier.

d. Electromagnetically Quiet Location. Before construction of any arm/disarm pad, local field measurements must be taken to ensure the location is electromagnetically quiet. To avoid potential electromagnetic interference from taxiing aircraft, the pads should be located on the side of a runway opposite the parallel taxiway.

e. Ammunition/Explosives Safety Standards. Criteria for ammunition and explosive safety standards are discussed in UFC 3-260-1, Attachment 10.

2.7.2 Category Code 116-662, Hazardous Cargo Pad. Paved areas for loading and unloading explosives and other potentially dangerous cargo from aircraft, hazardous cargo pads are required at facilities where the existing aprons cannot be used for the loading and unloading of such items without violating quantity-distance safety criteria. At ANG bases, hazardous cargo pads will be specifically authorized by CEP.

Hazardous cargo pads require explosives site planning, as discussed in UFC 3-260-1, Attachment 10.

a. Pad Size. At aviation facilities used by small cargo aircraft, the hazardous cargo pad is circular, as shown in UFC 3-260-1, Figure 6.25. At aviation facilities used by large cargo aircraft, at aerial ports of embarkation (APOE), and at aerial ports of debarkation (APOD), the hazardous cargo pad is semi-circular (as shown in UFC 3-260-1, Figure 6.26) and adequate for aircraft up to and including C-5 dimensions.

The hazardous cargo pad geometric dimensions shown in Figures 6.25 and 6.26 of UFC 3-260-1 are minimum requirements, and the actual pad may be larger if the design aircraft cannot maneuver on a minimally sized pad.

b. Tiedown and Grounding Points. Tiedown/mooring eyes and electrical grounding points must be provided on each hazardous cargo pad. These are discussed at greater length in UFC 3-260-1, Attachment 12.

c. Access Taxiway. An access taxiway will be provided for access from the primary taxiway to the hazardous cargo pad. The taxiway should be designed for aircraft to taxi onto the hazardous cargo pad under their own power.

d. Access Road. Consideration should be given to providing a paved roadway to the hazardous cargo pad for access by trucks and other vehicles.

e. Utilities. The following must be considered for hazardous cargo pads:

Telephone service	Airfield lighting
Apron lighting	Water/fire hydrants

2.7.3 Category Code 116-664, Unsuppressed Power Check Pad. An 80 FT x 120 FT (24.4 M x 36.6 M) paved area used in performing full power checks of jet engines, the basic aircraft power check pad is authorized for bases where suppressed pads are not required. It includes a thrust anchor (or anchors) for aircraft serviced by the pad, as well as paved shoulders and a blast deflector to protect the surrounding area from jet blast. It may also include floodlighting for night operations; a water supply to wash away fuel spills; oil separators, a holding tank, and adequate treatment of fuel-washdown drainage before its discharge to a sanitary or storm sewer; and communication with both the maintenance control room and the base telephone system.

Locate the power check pad to satisfy DoD 6055.9-STD and AFM 91-201 explosives safety standards.

2.7.4 Category Code 116-665, Power Check Pad (with Noise Suppressor). The prime facility on which operational checks of jet engines are performed, this type of power check pad usually supports Hush House sound suppressors, which are supplied – with associated devices – as government-furnished equipment (GFE). Optional features listed above (floodlighting, water supply, oil separators, holding tank, treatment of fuel-washdown drainage, and communications capability) may also be provided (see HQ AFMC/CEPR *Hush House Site Planning Bulletin*).

An unsuppressed pad is generally used as a backup or interim facility to the noise-suppressed pad if there is an operational requirement and the noise contour allows it.

2.7.5 Category Code 116-666, Warm-Up/Holding Pad. A paved area adjacent to a taxiway at or near the end of a runway, a warm-up pad (also referred to as a 'holding apron') provides a parking location off the taxiway for aircraft that must hold their position during indeterminate delays. This allows other departing or arriving aircraft unencumbered access to the taxiway/runway.

The most advantageous position for a warm-up pad is adjacent to the end turnoff taxiway, between the runway and its parallel taxiway. However, other design considerations such as airspace and navigational aids may make this location undesirable; if so, the warm-up pad should be located at the end of – and adjacent to – the parallel taxiway. See UFC 3-260-1, Figures 6.9 through 6.16, for illustrations of various warm-up pad layouts.

a. Pad Size. The warm-up/holding pad will be able to simultaneously accommodate two of the largest aircraft assigned to the facility, as described in the table under category code 113-321, Apron (see paragraph 2.5.1e, Aircraft Parking).

b. Tiedown and Grounding Points. No tiedown/mooring eyes or electrical grounding points are required on warm-up/holding pads.

2.7.6 Category Code 116-672, Aircraft Wash Rack. This pad is used for the cleaning of aircraft exterior surfaces. Both covered and uncovered wash racks will be justified on a case-by-case basis.

If the wash rack is not part of a larger facility (fuel cell or corrosion control), a separate corrosion control utility storage building (category code 211-161) up to 100 SF / 9.3 SM may be authorized to hold cleaning supplies and equipment.

2.8 Aircraft Arresting System Criteria

Aircraft arresting systems consist of engaging devices and energy absorbers. Engaging devices are net barriers, disc supported pendants (hook cables), and cable support systems that allow the pendant to be raised to the battery position or retracted below the runway surface. Energy absorbers can be ship anchor chains, rotary friction brakes, and/or rotary hydraulic systems.

The arresting system is government-furnished equipment, as discussed in AFI 32-1043, *Managing Aircraft Arresting Systems*.

Current AAS configurations include MA-1A BAK-13 (rotary hydraulic system) BAK-14
BAK-9 (rotary friction brake) 61QSII (BAK-15)
BAK-12 (rotary friction brake) Dual BAK-12 systems

2.8.1 Category Code 116-922, Aircraft Arresting System (AAS).

a. Authorized Number. Two aircraft arresting systems are authorized at each facility (one at each end of the most used runway) if fighters are assigned.

b. Procurement. Aircraft arresting systems are centrally procured. The requirements for arresting systems are first submitted by each MAJCOM to HQ AFCESA/CESC for validation. The arresting systems are then distributed according to the validated requirements [see AFI 32-1043 for details].

c. System Siting. Criteria for the placement of aircraft arresting systems are as follows:

MA-1, -1A	Overrun area, 50 FT / 15.3 M to 100 FT / 30.5 M from threshold
BAK-9	First 1,000 FT / 304.8 M of runway, or in overrun area (see above)
BAK-12, -13, -14	950 FT / 289.6 M to 2,500 FT / 760 M down runway from threshold

d. Design, Installation, and Repair. Detailed information regarding the planning, installation, and repair of an aircraft arresting system or arresting system complex is found in AFI 32-1043, *Managing Aircraft Arresting Systems*. The configuration and location of arresting system installations will also be determined in accordance with AFI 32-1043, while the system design will conform with criteria in Section 3 of the appropriate 35E8-series Technical Order and the typical installation drawings.

e. Runway Pavement. Condition of the 200 FT / 66.7 M of pavement on either side (approach and departure) of the arresting system pendant is critical. Protruding objects and undulating surfaces are detrimental to successful tailhook engagement and must not be allowed. The maximum permissible longitudinal surface deviation here is ± 0.125 IN / ± 3.2 MM in 12 FT / 3.7 M; consequently, no change in pavement type or interface between rigid and flexible pavements is permitted within this area.

f. Pavement Repair. Rigid inlays will not be used as a repair material beneath the cable in a flexible runway system because of the high hook skip potential that results when the flexible pavement consolidates and exposes the leading edge of the rigid pavement.

g. Joint-Use Airfields. Arresting systems installed on joint-use civil/military airfields to support military aircraft are sited in accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5220-9, *Aircraft Arresting Systems for Joint Civil/Military Airports*, which may be obtained from the following source:

U.S. Department of Transportation
General Services Section, M-443.2
Washington DC 20590

h. Disagreements. Any disagreements between the responsible local officials regarding aircraft arresting systems must be referred to the next higher level for resolution.

i. Operating Agency. When an aircraft arresting system is installed at a joint-use civil airfield for the primary use of U.S. military aircraft, the FAA acts for – and on behalf of – the DoD service component in 'operating' the equipment; however, the Civil Engineering Technical Services Center, Minot ND, performs AAS services for ANG.

Chapter 3. CATEGORY GROUP 12 PETROLEUM DISPENSING AND OPERATING FACILITIES

3.1 General Criteria

This chapter contains the major criteria and standards for petroleum dispensing and operating facilities at ANG installations nationwide, each of which must receive, store, distribute, and dispense the fuel and lubrication products necessary to achieve its assigned mission.

3.1.1 Category Code 121-111, Petroleum Operations Building. The petroleum operations building is a centralized facility for the management and control of all base functions related to the handling of petroleum products, including their receipt, storage, and issue. The building also includes a laboratory for conducting prescribed tests to ensure the aircraft fuel products conform to military specifications.

The size of the facility depends on the number of personnel assigned to manage fuels. The factors that determine total facility size are listed in the following table:

Petroleum Operations Function	Authorized Area (SF)		
	16-23 Personnel	24-31 Personnel	32+ Personnel
Fuels Chief – NCOIC	150	150	150
Secretary / Administration	100	100	100
Fuels Control Center / Dispatch	150	150	150
Ready Room / Operations & Maintenance	190	265	360
Training / Break Room	350	500	650
Laboratory	250	250	250
Personal Lockers (M/F)	115	175	220
Restrooms / Showers (M/F)	275	325	350
Mechanical / Electrical / Communications	150	170	190
Circulation / Walls	240	260	300
Janitor Closet	30	30	30
Total Petroleum Operations Area	**2,000 SF / 186 SM**	**2,375 SF / 221 SM**	**2,750 SF / 256 SM**

3.1.2 Category Code 121-122, Hydrant Fueling System. A hydrant fueling system, which includes a minimum of two operating storage tanks, provides all the equipment and controls necessary to deliver clean, dry fuel to fueling points in the aircraft parking apron. Fueling positions (pits) will be provided at all authorized aircraft parking positions.

A hydrant fueling system is required for aircraft with a total tank capacity of 20,000 GL / 75,700 LT or more, or for any aircraft – regardless of tank capacity – if a complete economic analysis shows the annual cost of owning and operating a hydrant fueling system is less than that of a truck fueling system.

3.1.3 Category Code 121-124, Hydrant Fueling Building. The hydrant fueling building houses all the pumps, filter separators, valves, piping, and controls required for operation of the hydrant fueling system. This facility should be fully enclosed and occupy an area of approximately 1,300 SF / 121 SM.

3.1.4 Category Code 123-335, Vehicle Fueling Station ('Base Service Station'). Provided to service government-owned vehicles and equipment, the facilities and equipment are similar to commercial service stations, with separate storage and dispensing facilities for each type of fuel issued.

One centralized fueling station shall be provided at each ANG installation. Two canopied dispensing pedestals for ground fuels will be provided for each increment of 150 motor vehicles authorized to be served; at least one pedestal will dispense motor gas and one will dispense diesel fuel.

A minimum storage capacity of 5,000 GL / 18,930 LT is authorized for each grade of fuel, unless need for a greater capacity is validated and approved by ANG/CEP.

Compressed natural gas service stations are generally skid-mounted equipment, versus real property.

3.1.5 Category Code 124-134, Operating Storage (Diesel). This tank is provided to store diesel fuel immediately before it is dispensed into vehicles or equipment. An above-ground tank is required, which shall conform to all local, state, and federal environmental regulations.

3.1.6 Category Code 124-135, Operating Storage (Jet Fuel). These tanks (minimum of two) are provided to store jet fuel immediately before it is dispensed into aircraft or refueling service vehicles. Above-ground tanks – which shall conform to all local, state, and federal environmental regulations – are preferred, with their size based on mission support requirements.

Minimum mission-based total storage requirements are as follows:

Aircraft	Storage Quantity (BL)	Storage Quantity (GL)
F-15 (up to 24 PAI)	4,800	200,000
Other fighter types (up to 24 PAI)	2,400	100,000
C-130J (up to 10 PAI)	2,400	100,000
KC-135 (up to 10 PAI)	10,000	420,000
C-141, C-17 (up to 10 PAI)	7,000	300,000
C-5, KC-10 (up to 10 PAI)	13,000	550,000

3.1.7 Category Code 124-137, Operating Storage (Motor Gas). This tank is provided to store motor gas immediately before it is dispensed into vehicles or equipment. An above-ground tank is required, which shall conform to all local, state, and federal environmental regulations.

3.1.8 Category Code 125-977, Pump Station (Liquid Fuel). This facility – located within the jet fuel storage complex – houses all the pumps, filter separators, valves, piping, and controls required to receive, issue, and transfer fuel into and out of the operating storage tanks.

The pump station should be fully enclosed and occupy an area of approximately 1,200 SF / 112 SM.

3.1.9 Category Code 126-925, Liquid Fuel Truck Fill Stand. Truck fill stands are provided at all ANG bases where jet fuel products are stored and dispensed as a means of transferring aviation fuel from the storage tanks into fuel servicing vehicles (refuelers) and tank trucks.

A minimum of two truck fill stands will be provided, to be located within the jet fuel storage complex. The need for any additional fill stands must be justified to DESC (Defense Energy Support Center), based on mission and operational requirements.

The stands may be covered to protect personnel from the elements (ice, snow, rain, wind, etc.), as well as minimize the amount of liquids that enter the containment area and must then be processed by the collection system. The covering would also provide an enhanced level of personnel safety and environmental protection.

3.1.10 Category Code 126-926, Liquid Fuel Truck Unloading Stand. Truck unloading stands are provided at all ANG bases where jet fuel products are dispensed as a means of unloading aviation fuel from commercial tankers or servicing vehicles.

A minimum of two truck unloading stands will be provided, to be located within the jet fuel storage complex. The need for any additional unloading stands must be justified to DESC (Defense Energy Support Center), based on mission and operational requirements.

The stands may be covered to protect personnel from the elements (ice, snow, rain, wind, etc.), as well as minimize the amount of liquids that enter the containment area and must then be processed by the collection system. The covering would also provide an enhanced level of personnel safety and environmental protection.

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Chapter 4. CATEGORY GROUP 13 COMMUNICATIONS, NAVIGATIONAL AIDS, AIR TRAFFIC CONTROL, AND AIRFIELD LIGHTING

4.1 General Criteria

Installation of ground-based aids to air traffic control, air navigation facilities, and airfield lighting at civil airports is normally accomplished by the Federal Aviation Administration (FAA) and the local airport authority, with FAA responsible to provide and program for these facilities. In exceptional instances where little or no commercial or civil air traffic exists at a base and no additional traffic is generated by other military services, the installation of terminal navigational aids such as VHF omni-directional range (VOR) and tactical air navigation (TACAN) will be considered.

ANG does not normally have the capability or financial responsibility for operating or maintaining permanently installed navigation aid systems. The need for a terminal navigational aid should be fully documented and submitted to ANG/C4 for review and assistance.

4.1.1 Category Code 130-142, Fire Crash/Rescue Station. Located on the flight line for quick response to aircraft emergencies, the fire crash/rescue station includes space for apparatus bays, an alarm room, sleeping quarters, recreation/dining areas, administration areas, equipment maintenance and storage areas, and facilities to maintain physical fitness.

Fire crash/rescue stations are manned and equipped at three levels of flight operations coverage: 'primary' (all flight operations), 'support' (ANG flight operations only), and 'training' (for that purpose). The tables that follow are divided into those three categories, with the first two – 'primary' and 'support' – presented as working templates to apply against different manning levels at various bases, case by case; because the manning levels for training are constant, the 'training' table has been completed.

[NOTE: The fire crash/rescue station is not to be confused with the category code 730-142 'community' fire station, which is normally located near family housing areas.]

- Primary (All Flight Operations) Level -

'Primary' Station Function	Authorized Area (SF)	Remarks
Alarm Center (24-hour manning)	300	
Restroom	40	
Bedroom	40	
Telecommunications	50	
Emergency Response Center	150	
Subtotal	580	
Apparatus (# bays, # pieces of equipment)		675 SF / piece x # pcs + 400 SF

'Primary' Station Function (cont'd)	Authorized Area (SF)	Remarks
Administration Area		
Vestibule/Entrance/Reception	150	
Fire Chief's Office	150	
Fire Chief's Conference Room	100	
Assistant Chief's Office (with bedroom)	170	
Assistant Chief / Tech Services Office	120	
HAZMAT/Safety Office	120	
Handicapped Restrooms (M/F)	100	
Admin Storage / Miscellaneous	100	
Subtotal		
Training Area		
Training/Break Room		20 SF / person x # persons (max)
Chief of Training Office	120	
Testing Room	100	
Computer Simulation	100	
Physical Fitness	750	
Subtotal		
Living Area		
Bedrooms		110 SF / person x # persons
Restrooms/Showers (M/F)		20 SF / person x # persons (max)
Janitor's Closet	50	
Personal Lockers		10 SF / person x # persons
Physical Therapy	100	
Laundry	100	
Subtotal		
Recreation/Dining Area		
Recreation Room		250 SF (min) + 10 SF / shift person
Day Room		200 SF (min) + 10 SF / shift person
Kitchen	200	
Kitchen Storage		25 SF / shift x # shifts
Dining Area		10 SF / shift person
Vending	20	
Subtotal	985	
Maintenance/Repair/Support/Storage		
Agent (AFFF) Storage	100	
Hose Storage & Drying	100	
Fire Extinguisher Maintenance & Repair	120	
SCBA Maintenance & Repair	120	
Protective Clothing Lockers		6 SF / person x # persons
Protective Clothing Laundry & Disinfecting Area	160	
General Storage	150	
Medical Storage	50	
Subtotal		
Circulation Subtotal		
Circulation		25% of Circulation Subtotal
Building Subtotal		
Mechanical/Electrical/Communications Room		5% of Building Subtotal
Grand Total		
Total 'Primary' Station Area (rounded)	SF / SM	

- Support (ANG Flight Operations Only) Level -

'Support' Station Function	Authorized Area (SF)	Remarks
Alarm Center (manned)	200	
Restroom	40	
Telecommunications	50	
Emergency Response Center	150	
Subtotal	440	
Apparatus (# bays, # pieces of equipment)		675 SF / piece x # pcs + 400 SF
Administration Area		
Vestibule/Entrance/Reception	100	
Fire Chief's Office	150	
Fire Chief's Conference Room	100	
Assistant Chief's Office	120	
Tech Services Chief's Office	120	
HAZMAT/Safety Office	120	
Handicapped Restrooms (M/F)	100	
Storage / Miscellaneous	75	
Subtotal	885	
Training Area		
Training/Break Room		20 SF / person x # persons
Chief of Training Office	120	
Testing Room	100	
Computer Simulation	100	
Physical Fitness	750	
Subtotal		
Living Area		
Restrooms/Showers (M/F)		20 SF / person x # persons
Janitor's Closet	50	
Personal Lockers		10 SF / person x # persons
Laundry	100	
Subtotal		
Recreation/Dining Area		
Recreation/Day Room		250 SF (min) + 10 SF / shift person
Kitchen	100	
Kitchen Storage		25 SF / shift x # shifts
Dining Area		10 SF / shift person
Vending	20	
Subtotal		
Maintenance/Repair/Support/Storage		
Agent (AFFF) Storage	100	
Hose Storage & Drying	100	
Fire Extinguisher Maintenance & Repair	100	
SCBA Maintenance & Repair	100	
Protective Clothing Lockers		6 SF / person x # persons
Protective Clothing Laundry & Disinfecting Area	160	
General Storage	100	
Medical Storage	35	
Subtotal		
Circulation Subtotal		
Circulation		25% of Circulation Subtotal
Building Subtotal		
Mechanical/Electrical/Communications Room		5% of Building Subtotal
Grand Total		
Total 'Support' Station Area (rounded)	_____ SF / _____ SM	

[See notes, next page.]

Note: 12 F/T personnel, 27 UTA personnel (10% overage = 30 UTA max).
12 F/T personnel split between 2 shifts, 8 hours / day (no overnights, no UTA weekends).
'Support' station provides ANG flight operations coverage only.

- Training Level -

'Training' Station Function	Authorized Area (SF)	Remarks
Alarm Room (unmanned)	100	Unmanned
Subtotal	100	
Apparatus (3 bays, 6 pieces of equipment)	4,450	675 SF / piece x 6 pcs + 400 SF
Administration Area		
Fire Chief's Office	150	
Assistant Chief's Office	120	
Tech Services Chief's Office	120	
Admin Storage / Miscellaneous	50	
Subtotal	440	
Training Area		
Training/Break Room	600	20 SF / person x 30 persons
Chief of Training Office	120	
Testing Room	100	
Physical Fitness	750	
Subtotal	1,570	
Living Area		
Restrooms/Showers (M/F)	600	20 SF / person x 30 persons
Janitor's Closet	50	
Personal Lockers	300	10 SF / person x 30 persons
Vending Area	20	
Subtotal	970	
Maintenance/Repair/Support/Storage		
Hose Storage & Drying	100	
Fire Extinguisher Maintenance & Repair	100	
SCBA Maintenance & Repair	100	
Protective Clothing Lockers	180	6 SF / person x 30 persons
Protective Clothing Laundry & Disinfecting Area	160	
General Storage	50	
Medical Storage	20	
Subtotal	710	
Circulation Subtotal	3,490	
Circulation	873	25% of Circulation Subtotal
Building Subtotal	9,113	
Mechanical/Electrical/Communications Room	456	5% of Building Subtotal
Grand Total	9,569	
Total 'Training' Station Area (rounded)	**9,600 SF / 892 SF**	

Note: No F/T personnel, 27 UTA personnel (10% overage = 30 UTA max).
'Training' station provides no flight operations coverage; used for training only.

4.1.2 Category Code 131-111, Communications Facility. The communications facility provides a centrally located system for both intra-base and off-base communications.

If an ANG unit is a tenant on an active-duty installation, the space authorizations are reduced when non-training functions are provided by the host base; if services are contracted out, the space authorizations for those functions are also to be reduced accordingly. Additional space is authorized if a regional operations support center (ROSC) is located on an installation.

Uninterruptible power supply (UPS) systems are considered unit equipment and will be funded through supply funding channels; however, the electrical service to the UPS and back-up power for the ROSC can be included as real property installed equipment.

Authorizations for the electrical service to the UPS and back-up power for the base network control center (BNCC) must be approved by ANG/CEP, based on mission requirements.

The following table presents a breakdown of the communications facility by function, authorized personnel, and related space requirements:

Comm Facility Function	Auth. Pers	ANG Unit (SF)	ANG Tenant (SF)	Remarks
Flight Commander (O-5, O-6)	1	225	225	
Conference Room (10 people)		225	225	
Administration (2 pers @ 90 SF)	2	180	180	
Storage & Supply Room		100	100	
Plans Chief (E-8)	1	100	100	
Plans Staff (3 pers @ 90 SF)	3	270	270	
Computer Staging/Storage	1	400	400	
ADPE Storage		200	200	Equip. for disposition
Mission Systems Chief (E-9)	1	125	125	
Systems Support	3	350	270	Incl. equip/tool storage
Telephone Maintenance	3	350	270	Incl. equip/tool storage
Radio Maintenance *[note 1]*	2	400	180	Incl. equip/tool storage
LMR Management (E-8)	1	100	100	
Computer Maintenance	3	350	270	Incl. equip/tool storage
PMI UTC Storage *[note 2]*		400	400	PMI UTC pkgs only
Secure Storage Room (Crypto)	1	100	100	TS-cert. open storage
BCTF Telephone Switch		750	0	
Information Systems Chief (E-9)	1	125	125	
BNCC[3]	10	1,250	1,250	
Mail & Distribution	1	120	120	
Information Support	1	200	200	
Publishing	1	100	100	
Data Supervisor (E-8)	1	100	100	
Data Communication/Distribution	1	200	200	
Media Storage		250	150	
Cmptr Trng [Class]Room (50 pers)		800	800	Training for entire base
Break Area		175	175	
Personnel Lockers		225	225	Includes A/V lockers
Subtotal	38	8,170	6,860	
Overhead Factor (30%)		2,451	2,058	
Total Comm Area		10,621	8,918	
Total Comm Area (rounded)		**10,600 SF / 985 SM**	**8,900 SF / 827 SM**	*[note 3]*

Comm Facility Function (cont'd)	Auth. Pers	ANG Unit (SF)	ANG Tenant (SF)	Remarks
ROSC Function				*[note 4]*
Classified Equipment Area		350		
Unclassified Operation Support Ctr		350		
Power Transfer Area		100		
Operations Area (12 pers @ 90 SF)	12	1,080		
ROSC Superintendent (E-9)	1	125		
Comm Distribution Area		100		
Subtotal	13	2,105		
Overhead Factor (30%)		632		
Total ROSC Area		2,737		
Total ROSC Area (rounded)		**2,700 SF / 250 SM**		

1. Authorized for 6-pack / test equipment / bench stock (in-house repair); if ANG tenant, training space only (150 SF / 14 SM).
2. Mobility bag storage to be located within Base Supply (category code 442-758).
3. Space authorization for communications units with up to 40 personnel.
4. Back-up power only to ROSC UPS, a/c, and lighting; authorization of BNCC back-up power based on mission requirements.

4.1.3 Category Code 136-661, Approach Lighting. Approach lighting is designed to form the sensory coupling between electronic, precision low-approach guidance and the visual reference of runway lighting for the landing of aircraft.

Approach lighting at commercial airports is normally provided by the FAA, although upgrades to meet Air Force criteria may be considered by ANG.

Air Force criteria will be used where ANG owns and operates the airfield. [See AFI 32-1044 for details.]

4.1.4 Category Code 136-664, Runway Lighting. Runway lighting at commercial airports is normally provided by the FAA, although upgrades to meet Air Force criteria may be considered by ANG.

Air Force criteria will be used where ANG owns and operates the airfield. [See AFI 32-1044 for details.]

4.1.5 Category Code 136-666, Special Airfield Lighting.

a. Basic FAA standard 4-box configuration (or other FAA follow-up configurations) may be used on civil airports. [See FAA Handbook 6850.2, *Visual Guidance Lighting Systems.*]

b. Lighted runway distance-remaining signs and lighted runway/taxiway signs will comply with FAA criteria at civilian airports and with military standards at the respective service airfields.

4.1.6 Category Code 136-667, Taxiway Lighting. Taxiway lighting may be provided for primary taxiways. Reflectors may be installed as an interim measure in place of lighting on the primary taxiway, or permanently installed on secondary or seldom-used taxiways. [See AFI 32-1044 for details.]

Chapter 5. CATEGORY GROUP 14 LAND OPERATIONAL FACILITIES

5.1 General Criteria

Land operational facilities include those needed for explosive ordnance disposal (EOD), aerospace pararescue and recovery functions, audio-visual activities, base operations, crew readiness, squadron operations, deployment processing, air traffic control, and range observation, each of which carries its own, unique category code.

5.1.1 Category Code 141-165, Explosive Ordnance Disposal (EOD) Facility. EOD personnel must have continuing proficiency training in applying EOD tools and techniques, and in the handling, setup, and detonation of explosives and the operation of explosively driven tools. They may also be required to train base personnel in explosive ordnance reconnaissance.

Where authorized, the EOD facility requires an administrative office, a training room suitable for classes/briefings containing up to (and including) 'SECRET' information, an equipment bay (with roll-up door) for special-purpose clothing and equipment storage, a workshop, and latrine facilities. In addition, EOD must have access – either on base or at a nearby DoD facility – to a demolition range (2.5 LB NEW limit). The EOD facility must also be located an 'inhabited building' distance from any explosive site, in accordance with AFM 91-201 (paragraph 5.3).

Classified information will be stored by the EOD facility; firearms will be stored in the Security Forces armory; and hazardous or explosive materials will be kept in above-ground magazine storage facilities (category code 422-258) or storage igloos (category code 422-264), in accordance with AFM 91-201 and DoDD 6055.9-STD, as well as with all federal, state, and local laws.

When possible, the EOD area should be co-located with Base Engineer Maintenance Facility (category code 219-944).

EOD Function	Authorized Area (SF)	Remarks
Flight Chief Office	150	
Staff Workspaces	450	5 persons
Secure Training Room	450	Max rating 'SECRET'
Maintenance and Secure Storage Area	1,900	Mobility
Laundry	75	
Net Area	3,025	
Overhead Factor (30%)	908	
Total EOD Area	3,933	
Total EOD Area (rounded)	**3,900 SF / 362 SM**	

5.1.2 Category Code 141-185, Aerospace Pararescue and Recovery Hangar. This facility is for the support of units with an airborne pararescue mission.

A typical ANG pararescue unit consists of 6 HH-60 helicopters, 4 HC-130 aircraft, and 80 personnel. The space requirement for the helicopter hangar – which may be co-located with another hangar – is 7,700 SF / 716 SM (based on 5 assigned aircraft) or 13,000 SF / 1,208 SM (for 6 assigned aircraft).

	Auth.		

Pararescue Admin Function	Pers	Authorized Area (SF)	Remarks
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 persons
Superintendent (E-9)	1	125	
First Sergeant	1	125	
Administration	4	360	
Director of Operations (O-4)	1	175	
Current Operations	3	270	
Plans / Intelligence	3	400	*[note 1]*
Standards/Evaluation DOV	1	125	
Training	6	540	
Testing, Distance/Unit Learning		225	2-4 persons testing
Scheduling	3	270	
Director of Logistics (O-4)	1	175	
Logistics Management	4	360	
Medical Director	1	125	
Medical Administration	3	270	
Flight Chiefs (O-4s)	3	525	
Flight Rooms	36	900	*[note 2]*
Class/Multi-purpose Room		800	Holds 1/2 unit at one time (40 pers)
SERE (Search, Evasion, Resistance, Escape)	4	360	
Subtotal	76	6,580	
Total Pararescue Admin Space		**6,580 SF / 611 SM**	

1. Must provide for secure storage and supernet; Intelligence requires a planning area and computer space.
2. One room for each flight (A, B, C), 12 pers @ 25 SF per room; rooms for mission brief/debrief, weapons cleaning.

Pararescue Support Function	Auth. Pers	Authorized Area (SF)	Remarks
Medical Training Support Equipment		200	
Controlled Substance/Medications Office	1	230	
Medical Supplies		400	Storage of controlled substances
Laundry Area *[note 3]*		400	4 commercial washers, dryers
Drying Room		500	
SCUBA Equipment Storage / Wash Room		800	
Parachute Riggers	4	1,000	*[note 4]*
Parachute Drying Tower		300	*[note 5]*
Parachute Storage		1,000	2.5 chutes / pers (w/ reserve) = 300
Supplies Storage / Supply Office	1	600	10% bench strg overage allowance
Mission Alert Equipment Storage		800	
Equipment Staging / Mission Buildup		1,200	*[note 6]*
Individual Equipment Storage		6,000	80 persons @ 100 SF / 9.3 SM
Bulk Equipment Storage / Mobility Bay		2,000	
Watercraft Equipment Storage	1	2,000	12 infl Zodiacs, 2 high in racks
LGC Communications	2	500	
Life Support	3	600	Only non-flying PJ personnel
Fuel Storage		140	*[note 7]*
Covered Outside Storage		2,500	Pallets, ISUs, RAMZ, ATV acc
Climbing & Rappelling Wall / Helo Mockup			Req per AF msg re Pararescue trng
Subtotal	12	20,940	
Total Pararescue Support Space		**20,940 SF / 1,945 SM**	

Total Pararescue Admin Space (76 persons)	6,580 SF / 611 SM
Common Area Factor (30%)	1,974 SF / 183 SM

Total Pararescue Support Space (12 persons)	20,940 SF / 1,945 SM
Common Area Factor (20%)	4,188 SF / 389 SM
Total Pararescue Area (99 persons)	33,682 SF / 3,129 SM
Total Pararescue Area (rounded)	**33,000 SF / 3,131 SM**

3. Includes space for hanging of down clothing and other cold-weather gear.
4. This shop packs Zodiacs and ATVs for air drops (900-1,600 lbs.); one location eases cleaning, packing, maintenance.
5. PJs are only element that require fresh-water rinsing and hang-drying of wet equipment and parachutes.
6. Area used for flights to prepare and inspect mission gear (parachutes, rucksacks, weapons, etc.).
7. Exterior, walled area with open-top concrete/brick construction storage for Zodiac and ATV fuel.

5.1.3 Category Code 141-383, Audio/Visual Facility. Provides space for the production, filing, and presentation of audio/visual materials, graphic arts, and visual aid products used in training, conferences, briefings, and similar activities.

The audio/visual library provides space for customer service, administration, audio/visual equipment storage/maintenance/training, and a previewing room. The graphic arts facility provides space for an artist or illustrator, work and production areas, copy/reproduction, composition and lettering, copy camera equipment, tools and accessories, display, master artwork, and reference materials and catalogues, as well as specialized drafting equipment, tools, and accessories.

Audio/Visual Function	Auth. Pers	Auth. Area (SF)	Remarks
Support Branch Chief (E-8)	1	100	
Customer Service Area (2 pers @ 90 SF)	2	180	
Storage & Supply Room		100	
Photo Support (3 pers @ 90 SF)	3	270	
Video Teleconference Room		450	
Multimedia Studio		600	Incl. production, editing, CCTV distribution center
Graphics	1	150	
Equipment Storage		150	
Connectivity Room		100	
Subtotal	7	2,100	
Overhead Factor (20%)		420	A/V lockers/restrooms under cat code 131-111
Total A/V Area		2,520	
Total A/V Area (rounded)	**2,500 SF / 232 SM**		

Note: Additional 175 SF / 16.3 SM authorized for units with combat camera equipment for UTC storage.
Mobility bag storage included in Base Supply (category code 442-758).
When possible, Audio/Visual Facility should be co-located with Communications Facility (category code 131-111).

5.1.4 Category Code 141-453, Base Operations. The space requirement for this item is included under Squadron Operations (category code 141-753), and is part of the squadron operations authorized space. Where ANG operates the airfield, a separate area for base operations may be justified – case-by-case – for operational need.

5.1.5 Category Code 141-459, Crew Readiness. Air defense crews and aircraft are in a continuous alert status to support the air defense or high-threat-area defense mission. Crew facilities must be near alert aircraft so crews can be airborne within the required time after the order to 'scramble'.

Air alert crews and supporting ground crews are on duty for 24 uninterrupted hours, during which time they require housing and support facilities to ensure good morale and effective performance of their

mission. The support facility also needs a separate room for operational support to allow operational materials to remain ready for use in a room that is securable when not in use.

This facility provides space for operations, crew quarters, and recreation for fighter, tanker, and airlift forces: operational areas include administrative space, operational offices, a mission planning area, and a briefing room; crew quarters include sleep and study rooms, bathrooms, a laundry, a lounge, a kitchen, and a dining room; recreational space includes exercise and game rooms. Space requirements for air defense or high-threat areas are provided for 4 aircrew members and 4 crew chiefs (male or female), with a private sleeping room, study room, and restroom for each.

The fighter aircraft crew readiness facility must be located to comply with explosives safety standards.

Alert Crew Readiness Function	Auth. Pers	Auth. Area (SF)	Remarks
Individual Bedroom / Study Area / Restroom	12	1,800	150 SF / pers
Ready Room / Break Room / Briefing Room		1,050	
Exercise Room (with M/F restrooms)		950	
Kitchen		200	
Food Storage		75	25 SF / rotation
Dining Area	10	100	10 SF / pers
Vending Area		20	
Laundry Room		100	
Personal Lockers (M/F)		120	5 SF / pers x 24 pers
Operations Area –			
SOF Office	1	500	
Operations Office	1	120	
Mission Planning / Storage	1	150	
Subtotal	25	5,185	
Overhead Factor (25%)		1,296	
Total Alert Crew Readiness Area		6,481	
Total Alert Crew Readiness Area (rounded)	**6,500 SF / 604 SM**		

5.1.6 Category Code 141-753, Squadron Operations. Each flying squadron requires a facility for the planning, briefing, administration, and critique of combat crews. Space for USAF Command Post (category code 141-461) and Base Operations (category code 141-453) is included, but not duplicated.

Facility functions include weapons and tactics, intelligence, briefing and debriefing, air advisor, flying safety, standardization and evaluation, flight planning, chemical ensembles storage, flight records, life support (to include night vision goggles), physical training, scheduling, general training (CFT, EPT, etc.), and group or wing operations.

Aircraft / Mission	Authorized Area (SF)
A-10, F-15(15-24 PAA)	24,000
C-130 (8-12 PAA)	22,000
C-5, C-17 (8-12 PAA)	24,700
HC-130, MH-60G (4, 6 PAA) [rescue]	21,500 *
KC-135 (10 PAA)	21,600
KC-10 (10 PAA)	24,700
B-52 (8 PAA)	33,000
F-16 with RECCE/TARS pods	add 200 **

* Add 22,700 SF for CONUS operations, or 25,850 SF for Alaskan ops.
** Requirement may be satisfied by PPIF or other facility.

F-16 Aircraft	Authorized Area (SF)
Admin area	5,000
Operational & support area-Includes 3,250 secure area	15,000
Command Post Area	1,700
Base Ops	1,600
Survival Equipment Shop	4,000
*Includes circulation, latrines and other overhead factors	
Total F-16 Squadron Operations	**27,300**

5.1.7 Category Code 141-786, Deployment Processing Facility. A typical deployment processing facility provides training space for receiving and processing personnel and baggage; baggage pallet buildup; counseling; passenger processing, briefing, and holding; miscellaneous space such as rest rooms; and a vending area. Space is also required for both a cargo deployment and a personnel deployment function (CDF, PDF), to include a Deployment Control Center (DCC), Transportation Control Unit (TCU), and a Deployment Processing Unit (DPU).

An 8,000 SF deployment processing facility is authorized at any installation charged with deploying personnel and equipment in support of deployment tasking. When located on another military installation, the unit will use the host facilities (unless operationally justified to ANG/CEP).

5.1.8 Category Code 149-962, Air Traffic Control Tower. Every airfield is authorized an air traffic control tower, necessary for the safe and efficient conduct of flight operations.

a. Functional Requirements. The tower consists of the control tower cab, a training and crew briefing room, a tower simulator (used for training), mechanical rooms, the chief air traffic control officer's (CATCO) office, an administration area, a back-up generator, utility support, extensive communications support, a catwalk around the outside of the tower cab, an intercom system, a security system, and an elevator. An access road and parking lot for organizational and non-organizational vehicles must also be provided.

b. Spatial Requirements. Space requirements are generally dictated by the site survey and statement of intent (SOI) that define some site-specific design parameters, and depend primarily on the height requirements of the tower and the standard floor layout.

c. Special Features. Consult the HQ AFCEE/DGA *Design Guide for Air Traffic Control Towers* for details on special features and spatial requirements of the air traffic control tower. Among the considerations are panels for the remote control of airfield lighting (FAA AC-1501/153345-3C); bright radar indicator tower equipment (BRITE) terminals; instrument consoles; a light gun; communication and flight tracking consoles; special heating, ventilation, and air conditioning needs; electrical power and grounding requirements; and fire detection and suppression systems/capabilities.

In addition to an airfield's main air traffic control tower, each air-to-ground range will require its own, smaller (225 SF / 20.9 SM) control tower. A radio equipment room (100 SF / 9.3 SM) may be included in the range tower structure, or be developed as a stand-alone building adjacent to the tower. [See Aircraft Range, category code 179-481.]

ATC Tower Function	Authorized Area (SF)	Remarks
Tower Control Cab	540	Top floor
Mechanical Room	640	Eighth floor
Simulator/Training Room	640	Seventh floor
Upper Electronics Equipment Room	640	Sixth floor

Lower Electronics Equipment Room	640	Fifth floor
Administrative Area	640	Fourth floor
Administrative Area	640	Third floor
Telephone Room	640	Second floor
Generator / Elevator Machinery Room	640	First (ground) floor
Total ATC Tower Area	**5,660 SF / 526 SM ***	

* Space may be provided next to the tower, if the tower height is not necessary.

[See notes, next page.]

Note: Tower consists of the floors listed below the tower control cab, based on site conditions.
Tower height is determined at the time of the site survey.
The number of 'administrative' floors is dependent upon tower height; all floors not otherwise identified are finished out for administrative use, as needed.
Available space per floor (after removing elevator, internal stairway, landings, and cable ducts) is approximately 350 SF / 32.5 SM.
Unisex restrooms (located on alternate floors) each occupy 28 - 35 SF / 2.6 - 3.3 SM.
Additional floors required to obtain correct height for 'line of sight' do not count against authorized area.

5.1.9 Category Code 149-967, Observation Tower. Each aircraft firing range will require one or two observation towers, as specified by the range layout. [See Aircraft Range, category code 179-481.]

Chapter 6. CATEGORY GROUP 17 TRAINING FACILITIES

6.1 General Criteria

ANG training facilities encompass those needed to support marching/concert bands, flight simulators, communications and electronics training, aeromedical evacuation and medical training, combat arms training and maintenance, aerial port training, small arms ranges, and aircraft ranges, as well as the command structures necessary for their operation.

6.1.1 Category Code 171-158, Band Center. Provides space to operate and administer a band, which includes studios, individual practice rooms, a music library, lockers, restrooms, a secure storage area for musical instruments and supplies, and administrative space.

Note that all bands have 36 authorized personnel.

Band Admin Function	Authorized Area (SF)	Remarks
Commander (O-5)	225	
Commander's Conference Room	225	12-15 pers
First Sergeant	150	
Administration	400	
Supply / Instrument Repair	1,400	
Rehearsal Hall	1,500	
Ensemble Practice Area	900	
Small Ensemble Area	150	
Individual Practice Rooms	150	3 rooms @ 50 SF / 4.6 SM
Library	400	
Break Room	150	
Personal Lockers	180	36 pers @ 5 SF / .5 SM
Net Area	5,830	
Overhead Factor (20%)	1,166	
Total Band Admin Area	6,996	
Total Band Admin Area (rounded)	**7,000 SF / 650 SM**	

Note: Mobility bags – if authorized – will be stored at Base Supply (see category code 442-758).

6.1.2 Category Code 171-212, Flight Simulator Training Facility. Used for all flight simulation training including aircrew combat training system (ACTS), the facility houses administration and records, classrooms, restrooms, trainer maintenance, supply storage, counseling space, a technical library, and secure storage space.

The scope and authorization of this facility will be determined by ANG/CEP, based on mission and the equipment assigned. Its space may be co-located with Squadron Operations (category code 141-753), or it may be a separate structure (note that EPT/CPT is a part of the Squad Ops category code).

6.1.3 Category Code 171-443, Reserve Forces General Training Support Facility. This facility supports various ANG mission support units not otherwise defined, including – but not limited to – services flights, weather flights, honor guard, airlift control flight (ALCF), tanker airlift control element (TALCE), etc., and encompasses office and administrative areas, storage space, administrative support space, and classrooms.

Additional space requirements for mobility equipment storage, training mockups, work areas, or other requirements unique to a particular unit will be separately determined.

Support Unit	Auth. Pers	Function Space (SF / SM) Admin	Storage	Personnel	Training
Weather Flight	13-18	1,800 / 167			
	19-30	2,700 / 251			
Services Flight	6-20	1,600 / 149	1,400 / 130		
	21-30	2,200 / 204	1,500 / 139		
	31-40	2,800 / 260	1,600 / 149		
Airlift Control Flight			1,600 / 149	2,100 / 195 *	
Honor Guard Flight		500 / 46	1,000 / 93		1,000 / 93

* Deduct 500 SF / 46 SM if co-located with Aerial Port, Squad Ops, or similar facility.

6.1.4 Category Code 171-445, Reserve Forces Operational Training Facility. Designated as common for ANG units; includes space for the wing commander and staff, environmental manager, administration, public affairs, safety, the support group commander, judge advocate, public relations, accounting and finance, logistics plans, a chaplain, the historian, personnel, publications distributions, social actions, counseling, family support, recruiting, comptroller, conference area, and classrooms.

For RED HORSE (Rapid Engineer Deployable Heavy Operational Repair Squadron, Engineering) applications, this facility provides primary space for squadron administration in support of the unit; includes space for the commander, first sergeant, and mission support.

Reserve Forces Operational Training Facility Function	Auth. Pers	Auth. Area (SF)	Remarks
Wing Staff			
Wing Commander	1	300	
Vice Commander	1	250	
First Sergeant	1	125	
Admin/Personnel	3	180	
Community Manager	1	125	
Conference Room		300	
Support Group Staff			
SG Commander	1	250	
Executive Officer	1	175	
First Sergeant	1	125	
Student Flight Advisor	1	100	
Admin/Personnel	1	100	
Conference Room		225	
Financial Management			
Chief Financial Officer	1	225	
Financial Assistant	2	225	
Accounting	6	360	
Pay	5	300	
Admin/Reception		200	Maximum 10 pers
Consultation Room		100	Maximum 5 pers

Reserve Forces Operational Training Facility Function (cont'd)	Pers	Auth. Area (SF)	Remarks
Mission Support Flight			
MSF Commander	1	225	
Recruiting and Retention	3	300	
Director of Personnel	1	225	
NCOIC of Personnel	1	125	
Admin/Personnel	2	120	
Enlistments and Separations	4	280	
Personnel Systems and Readiness	3	220	
Base Career Advisor	2	200	
Career Progression	2	120	
Customer Service	4	280	
HRO Remote Designee	1	100	
Education & Training OIC/NCOIC	2	225	
Education & Training Office	3	180	
Testing Room		375	Maximum 15 pers
Diversity Training			
OIC/NCOIC	2	225	
Family Services			
Volunteer	2	120	
Storage		60	
Chaplain's Office			
Chaplains	3	550	
Admin/Personnel	3	180	
Social Actions			
OIC/NCOIC	2	225	
Admin/Personnel	2	120	
Judge Advocate			
Legal Officers	2	400	
Admin/Personnel	2	120	
Public Affairs			
OIC/NCOIC	2	225	
Admin/Personnel	2	120	
LGX / Plans			*[note 1]*
LGX	3	550	
Plans	2	200	
Safety Office			
OIC	1	225	
OSH Manager	1	125	
Explosives Safety	2	120	
Admin/Personnel	2	120	
Wing History Office			
Historian	2	185	
Storage		100	
Environmental Management Office			
Environmental Manager	2	230	
Miscellaneous			
Auditorium		3,500	Maximum 250 pers *[note 2]*
Projection/Storage		100	
Copier/Fax Room		120	
Break Room		200	
Subtotal	90	14,760	
Overhead Factor (30%)		4,428	
Total Reserve Forces Operational Training Facility Area		19,188	
Total Training Facility Area (rounded)		**19,200 SF / 1,784 SM**	

1. Mobility Control Center is part of the Deployment Processing Facility (category code 141-786).
2. The auditorium should be subdividable to allow multiple activities when the entire room is not needed; for double units, additional space is justified on a case-by-case basis.

RED HORSE Function	Auth. Pers	Auth. Area (SF)	Remarks
Squadron Command			
Commander (O-6)	1	225	Full-time
First Sergeant (E-8)	1	125	Part-time
Admin/Reception		200	Maximum 10 pers
Conference Room		300	
Safety NCO	1	125	
Environmental Manager	1	150	
Medical Staff			*[note 1]*
Squadron Physician (O-5)	1	200	Part-time
Nurse Assistant	1	125	
Hearing Testing Room	1	100	
Treatment Room		225	
Support Services			
Admin Officer (O-4)	1	125	Part-time
Recruiting and Retention (E-7)	1	100	Full-time
Financial Management NCO (E-6)	1	125	Part-time
NCOIC Admin/Training (E-7)	1	125	Part-time
Admin/Personnel	2	120	
Personnel Specialist	1	100	
Personnel Systems/Readiness	3	220	
Education & Training NCO (E-7)	1	125	Full-time
Testing Room		375	Maximum 15 pers
Copier/Fax Room		120	
Break Room		200	
Family Services			
Volunteer	2	120	
Social Actions	1	100	
Storage		60	
LGX / Plans			
LGX & Plans OIC (O-4)	1	150	Part-time
LGX Staff (E-7, E-6)	2	200	E-7 full-time, E-6 part-time
Plans Staff	2	200	
Miscellaneous			
Auditorium / Multi-purpose Room		3,500	*[note 2]*
Projection/Storage		100	
Subtotal	26	7,940	
Overhead Factor (30%)		2,382	
Total RED HORSE Area		10,322	
Total RED HORSE Area (rounded)	**10,400 SF / 966 SM**		

1. Decrease scope by 845 SF when medical staff is co-located with base.
2. The auditorium should be subdividable to allow multiple activities when the entire room is not needed.

6.1.5 Category Code 171-447, Reserve Forces Comm/Electronics Training Facility. Provides space for operations and maintenance, administration, shops, and classroom functions; space authorizations for other uses will be handled on a case-by-case basis.

Communications and electronics unit types include combat communications group (CCG), combat communications squadron (CCS), air control squadron (ACS), air support operations center (ASOC), air support operations squadron (ASOS), air traffic control squadron (ATCS), engineering installation squadron (EIS), and others.

- Combat Communications Group -

CCG Admin Function	Auth. Pers	Authorized Area (SF)	Remarks
Commander (O-6)	1	250	
Commander's Conference Room		225	12-15 pers
Vice Commander (O-5)	1	225	
Director of Operations (O-5)	1	225	
Telecommunications Manager (E-9)	1	100	
Operations Admin/Support/Storage	1	150	
Operations Engineering	2	180	
Communications Focal Point (CPF)		250	9-10 pers / shift
Director of Logistics (O-5)	1	225	
Logistics Management Officer (O-4)	1	175	
Logistics NCOIC (E-9)	1	100	
Logistics Support	3	270	
Logistics Admin/Support/Storage	1	150	
Director of IM/Personnel (O-5)	1	225	
Personnel NCOIC (E-7)	1	100	
Personnel Admin/Support/Storage	1	150	
Training	1	120	Includes storage
Training Admin/Support/Storage	1	150	
AF Advisor (O-5)	1	225	
Chaplains (O-4 and O-5)	2	240	Requires private counseling area
Plans Officer (O-4)	1	175	
Recruiter Support/Storage		60	
Mailroom/Reproduction		150	
Maintenance Control Officer (O-4)	1	175	
Maintenance Controllers	8	720	
ATC Officer (O-4)	1	175	
AT Controllers	3	270	
Current Ops	3	270	
Operations OIC (O-4)	1	175	
Operations Manager (E-9)	1	100	
Tech Controllers	2	180	
Subtotal	44	6,275	
Break Room		120	
Classroom / Multi-purpose Area		871	44 pers @ 19.8 SF / 1.8 SM
Personal Lockers		220	44 pers @ 5 SF / .5 SM
Subtotal	44	7,486	
Overhead Factor (30%)		2,246	
Total CCG Admin Area		9,732	
Total CCG Admin Area (rounded) *	**9,750 SF / 906 SM**		

* Add 4,000 SF / 372 SM for Group Headquarters with UTC 6KMM9.

- Combat Communications Squadron -

CCS Admin Function	Auth. Pers	Authorized Area (SF)	Remarks
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 pers
First Sergeant	1	125	
Recruiting	1	150	Includes storage space
Ground Safety	1	90	
Info Management (3 pers) / Personnel (1 pers)	4	360	
Mission Support Flight Chief (O-4)	1	175	
Reproduction		150	
Testing (6-7 pers)		150	
Training	1	90	
Readiness / Disaster Preparedness	1	90	
Air Force Advisor (E-7) [GSU only]	1	100	
Family Support [GSU only]		180	2 volunteers
Controlled Crypto Items (CCI) Maintenance	2	300	
CCI Storage		150	
CCI Secure Area		200	Only GSA 3-pos. lock required
Communications Center / COMSEC Vault	3	700	Cert. for open 'SECRET' storage
Record Communications Office (E-7)	1	180	Includes record storage space
Voice Communications Office (E-7)	1	100	
UDCC/CFP	8	400	8 pers / shift
Chief, Maint / Chief, Combat Support (O-4)	1	175	
Logistics Plans	1	90	
Maintenance Control	1	90	
Quality Control	3	270	
Base Level Systems Flight Chief (O-4)	1	175	
Base Level Systems Information Manager (IM)	2	180	
Base Level Systems Manager (E-9)	1	100	
Base Level Systems Superintendent (E-8)	1	100	
Network Systems Flight Chief (O-4)	1	175	
Network Systems Flight Manager (E-9)	1	100	
Network Systems Flight Superintendent (E-8)	1	100	
Network Systems Information Manager (IM)	1	90	
Satellite Systems Office	1	90	
Wideband Systems Office	1	90	
CCS Subtotal	45	6,055	
Break Room		150	
Classroom / Multi-purpose Area		1,983	130* pers @ 15.25 SF / 1.4 SM
Personal Lockers		550	110 pers @ 5 SF / .5 SM
Overhead Factor (30%)		2,621	
Total CCS Admin Space		**11,359 SF / 1,055 SM**	

* Includes 5 Supply, 6 Vehicle Maint, and 9 AGE / Power Production personnel who are located in other facilities.

- Combat Communications Squadron (cont'd) -

CCS Shop Function	Auth. Pers	Authorized Area (SF)	Remarks
Record Communications Shop	12	600	
Record Communications Storage		90	
Voice Communications Shop	17	720	
Voice Communications Storage		90	
Network Control Shop	9	1,500	
Network Control Storage		150	
Satellite Systems Shop	8	750	
Satellite Systems Storage		90	
Wideband Systems Shop	19	1,250	
Wideband Systems Storage		120	
Subtotal	65	5,360	
Overhead Factor (20%)		1,072	
Total CCS Shop Space		**6,432 SF / 598 SM**	

Total CCS Admin Space (45 pers)	11,359 SF / 1,055 SM
Total CCS Shop Space (65 pers)	6,432 SF / 598 SM
Total CCS Area (110 pers)	17,791 SF / 1,653 SM
Total CCS Area (rounded)	**17,800 SF / 1,654 SM**

- Co-located Combat Communications Group / Combat Communications Squadron -

Co-located CCG and CCS Admin Function	Auth. Pers	Authorized Area (SF)	Remarks
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 pers
First Sergeant	1	125	
Recruiting	1	150	Includes storage space
Ground Safety	1	90	
Info Management (3 pers) / Personnel (1 pers)	4	360	
Mission Support Flight Chief (O-4)	1	175	
Reproduction		150	
Testing (6-7 pers)		150	
Training	1	90	
Readiness / Disaster Preparedness	1	90	
Air Force Advisor (E-7) [GSU only]	1	100	(if authorized)
Family Support [GSU only]		180	2 volunteers
Controlled Crypto Items (CCI) Maintenance	2	300	
CCI Storage		150	
CCI Secure Area		200	Only GSA 3-pos. lock required
Communications Center / COMSEC Vault	3	700	Cert. for open 'SECRET' storage
Record Communications Office (E-7)	1	180	Includes record storage space
Voice Communications Office (E-7)	1	100	
UDCC/CFP	8	400	8 pers / shift
Chief, Maint / Chief, Combat Support (O-4)	1	175	
Logistics Plans	1	90	
Maintenance Control	1	90	
Quality Control	3	270	
Base Level Systems Flight Chief (O-4)	1	175	
Base Level Systems Information Manager (IM)	2	180	

Base Level Systems Manager (E-9)	1	100	
Base Level Systems Superintendent (E-8)	1	100	
Co-located CCG and CCS Admin Function (cont'd)	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Network Control Office	1	90	
Network Systems Flight Chief (O-4)	1	175	
Network Systems Flight Manager (E-9)	1	100	
Network Systems Flight Superintendent (E-8)	1	100	
Network Systems Information Manager (IM)	1	90	
Satellite Systems Office	1	90	
Wideband Systems Office	1	90	
CCG Subtotal	44	6,275	
CCS Subtotal	45	6,055	
Break Room		270	
Classroom / Multi-purpose Area		2,462	174* pers @ 14.15 SF / 1.3 SM
Personal Lockers		770	154 pers @ 5 SF / .5 SM
Combined CCG/CCS Subtotal	89	15,832	
Overhead Factor (25%)		3,958	
Total CCG/CCS Admin Space		**19,790 SF / 1,839 SM**	

* Includes 5 Supply, 6 Vehicle Maint, and 9 AGE / Power Production personnel who are located in other facilities.

Co-located CCG and CCS Shop Function	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Record Communications Shop	12	600	
Record Communications Storage		90	
Voice Communications Shop	17	720	
Voice Communications Storage		90	
Network Control Shop	9	1,500	
Network Control Storage		150	
Satellite Systems Shop	8	750	
Satellite Systems Storage		90	
Wideband Systems Shop	19	1,250	
Wideband Systems Storage		120	
Subtotal	65	5,360	
Overhead Factor (20%)		1,072	
Total CCG/CCS Shop Space		**6,432 SF / 598 SM**	

Total CCG/CCS Admin Space (89 pers)	19,790 SF / 1,839 SM
Total CCG/CCS Shop Space (65 pers)	6,432 SF / 598 SM
Total CCG/CCS Area (154 pers)	26,222 SF / 2,437 SM
Total CCG/CCS Area (rounded)	**26,200 SF / 2,434 SM**

- Air Control Squadron -

ACS Admin Function	Auth. Pers	Authorized Area (SF)	Remarks
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 pers
First Sergeant	1	125	
Ground Safety	1	90	
Info Management (3 pers) / Personnel (1 pers)	4	360	
Reproduction		150	
Testing (6-7 pers)		150	
Training	1	90	
Readiness / Disaster Preparedness	1	90	
Medical Services	1	90	
Airbase Defense/Security	1	90	
Intelligence Support Management (O-4)	1	100	
TTY/Crypto Operations Secure Area	5	450	Only GSA 3-pos. lock required
Communications Center / COMSEC Vault	1	700	Cert. for open 'SECRET' storage
Logistics Plans	1	90	
Maintenance Control	3	270	
Quality Control	3	270	
Comm Computer Systems Chief (O-4)	1	175	
Comm Electronics Systems Manager (E-9)	1	100	
Comm Systems Superintendent (E-8)	1	100	
Ground Radar Systems Superintendent (E-8)	1	100	
MCE Battle Management (O-4)	7	775	
Ground Radar Operations Superintendent (E-8)	1	100	
Ground Radar Operations	19	1,500	
Subtotal	56	6,415	
Break Room		150	
Classroom / Multi-Purpose Area		1,983	130* pers @ 15.25 SF / 1.4 SM
Personal Lockers		520	104 pers @ 5 SF / .5 SM
Subtotal	56	9,068	
Overhead Factor (30%)		2,720	
Total ACS Admin Space		**11,788 SF / 1,095 SM**	

* Includes 3 Supply, 6 Vehicle Maint, 15 AGE / Power Production, and 3 Services personnel who are located in other facilities.

ACS Shop Function	Auth. Pers	Authorized Area (SF)	Remarks
Ground Radar Systems Maintenance Shop	12	1,000	
Ground Radar Systems Maintenance Storage		100	
Computer Systems Maintenance Shop	10	900	
Computer Systems Maintenance Storage		150	
Secure Comm Systems Maintenance Shop	3	450	
Secure Comm Systems Maintenance Storage		150	
Satellite Systems Maintenance Shop	11	1,000	
Satellite Systems Maintenance Storage		100	
Wideband Systems Maintenance Shop	12	1,000	
Wideband Systems Maintenance Storage		150	
Subtotal	48	5,000	
Overhead Factor (20%)		1,000	

Total ACS Shop Space		**6,000 SF / 557 SM**

- Air Control Squadron (cont'd) -

Total ACS Admin Space (56 pers)	11,788 SF / 1,095 SM
Total ACS Shop Space (48 pers)	6,000 SF / 557 SM
Total ACS Area (104 pers)	17,788 SF / 1,652 SM
Total ACS Area (rounded)	**17,800 SF / 1,654 SM**

- Air Support Operations Center (97-person unit) -

ASOC Function, 97-person unit	Auth. Pers	Authorized Area (SF)	Remarks
OFFICE AREAS Module 1 – Administration			
Commander's Office		250	
Commander's Conference Room		375	
First Sergeant's Office		150	
Administration Office		200	
Subtotal		975	
Module 2 – Operations			
Director of Operations' Office		135	
Operations Superintendent's Office		135	
Training & Evaluation Area		600	Two rooms
Flight Operations Suite		500	
ASOC Info Sys Analysis / Tech Controllers		600	
ASOC Mobility/Logistics Office		135	
Subtotal		2,105	
Module 3 – Common Areas			
Vault / Classified Storage Room		200	
Mission Planning Room		325	
Mission Briefing Room		420	
Multi-Purpose Room		2,150	Room is partitionable
Library		225	
Subtotal		3,320	
Module 4 – Maintenance			
ASOC Communications Officer's Office		135	
ASOC Computer Switch / COMSEC Office		135	
ASOC Quality Assurance Office		135	
Maintenance Officer's Office		135	
Maintenance Superintendent's Office		135	
Job Control Office		135	
Material Control Office		225	
ASE/Vehicle Maintenance Office		225	
Radio Maintenance Office		325	
Subtotal		1,585	
NON-OFFICE AREAS Common			
Break Room		500	
Subtotal		500	
Maintenance			
ASOC 209 System Maintenance Bay		600	
ASOC SAT Communications Maintenance Bay		500	
ASE/Vehicle Work Center		400	
Radio Maintenance Work Center		800	

Bench Stock Supply Room		360	
Battery Room		190	
ASOC Function, 97-person unit (cont'd)	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Mobility Readiness Spare Parts Storage		320	
Unit Mobility Bag Storage		920	
Radio Maintenance Field Equipment Storage		320	
Portable Radio Storage Area		190	
Maintenance Bay Access		1,120	
Radio Maintenance Vehicle Bays		1,680	
Vehicle Maintenance Bays		1,400	
Subtotal		8,800	
Total ASOC Building Space		17,285	
Overhead Factor (20%)		3,457	
Total ASOC Area		20,742	[based on 97 pers]
Total ASOC Area (rounded) – 97 pers	**20,700 SF / 1,924 SM**		

- Air Support Operations Squadron (72-person unit) -

ASOS Function, 72-person unit	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
OFFICE AREAS Module 1 – Administration			
Commander's Office		250	
Commander's Conference Room		375	
First Sergeant's Office		150	
Administration Office		200	
Subtotal		975	
Module 2 – Operations			
Director of Operations' Office		135	
Operations Superintendent's Office		135	
Theater Airlift Liaison Officer's Office		135	
Training & Evaluation Area		785	Two rooms
Scheduling Area		360	Four workstations
Flight Commander's Office		450	
Flight Operations Suite		950	
Subtotal		2,950	
Module 3 – Common Areas			
Vault / Classified Storage Room		300	
Mission Planning Room		325	
Mission Briefing Room		420	
Multi-Purpose Room		2,150	Room is partitionable
Library		225	
Subtotal		3,420	
Module 4 – Maintenance			
Maintenance Officer's Office		135	
Maintenance Superintendent's Office		135	
Job Control Office		135	
Material Control Office		225	
ASE/Vehicle Maintenance Office		225	
Radio Maintenance Office		325	
Subtotal		1,180	
NON-OFFICE AREAS Common			

Break Room		500	
Subtotal		3,485	
ASOS Function, 72-person unit (cont'd)	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Maintenance			
ASE/Vehicle Work Center		400	
Radio Maintenance Work Center		800	
Bench Stock Supply Room		360	
Battery Room		190	
Mobility Readiness Spare Parts Storage		320	
Unit Mobility Bag Storage		680	
Radio Maintenance Field Equipment Storage		320	
Portable Radio Storage Area		190	
Maintenance Bay Access		1,120	
Radio Maintenance Vehicle Bays		1,680	
Vehicle Maintenance Bays		1,400	
Subtotal		7,460	
Total ASOS Building Space		16,485	
Overhead Factor (20%)		3,297	
Total ASOS Area		19,782 SF / 1,838 SM	[based on 72 pers]
Total ASOS Area (rounded) – 72 pers	**29,100 SF / 2,703 SM**		

- Air Traffic Control Squadron (70-person unit) -

ATCS Admin Function, 70-person unit	Auth. Pers	Authorized Area (SF)	Remarks
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 pers
First Sergeant (E-7)	1	125	
Safety (E-6)	1	90	
Commander's Admin (E-6)	1	90	
Reproduction, Supplies, etc.		150	
Training NCOIC (E-7)	1	90	
Testing		150	
Personnel NCOIC (E-7)	1	90	
Logistics Plans NCOIC (E-7)	1	90	
Maintenance/Operations Admin	1	90	
Chief, ATC Operations (O-4)	1	175	
Chief, ATC Training (E-6)	1	90	
ATC Superintendent (E-9)	1	100	
Mobile Tower Chief (E-8)	1	100	
Mobile Tower Controllers	11	440	
Mobile RAPCON Chief (E-8)	1	100	
Mobile RAPCON Controllers	18	720	
Terminal Instrument Procedures - TERPS (E-6)	1	200	Map cases, drawing boards, etc.
Maintenance Supervisor (E-8)	1	100	
Maintenance Control (E-8)	1	100	
Quality Control (E-8)	1	100	
Radar Maintenance NCOIC (E-7)	1	100	
Radio Maintenance NCOIC (E-7)	1	100	

METNAV Maintenance NCOIC (E-7)	1	100	
Subtotal	49	3,940	
ATCS Admin Function, 70-person unit (cont'd)	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Break Room		150	
Classroom / Multi-Purpose Area		1,440	80* pers @ 18 SF / 1.7 SM
Personal Lockers		400	80 pers @ 5 SF / .5 SM
Subtotal	49	5,930	
Overhead Factor (30%)		1,779	
Total ATCS Admin Space		**7,709 SF / 716 SM**	

* Includes 3 Supply, 21 Shop, and 7 AGE / Power Production personnel.

ATCS Shop Function	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Radar Maintenance Shop	7	700	
Radar Maintenance Storage		100	
Radio Maintenance Shop	9	900	
Radio Maintenance Storage		100	
METNAV Maintenance Shop	3	300	
METNAV Maintenance Storage		50	
Wire Maintenance Shop	2	200	
Wire Maintenance Storage		50	
Subtotal	21	2,400	
Overhead Factor (20%)		480	
Total ATCS Shop Space		**2,880 SF / 268 SM**	

Total ATCS Admin Space (49 pers)	7,709 SF / 716 SM
Total ATCS Shop Space (21 pers)	2,880 SF / 268 SM
Total ATCS Area (70 pers)	10,589 SF / 984 SM
Total ATCS Area (rounded)	**10,600 SF / 985 SM**

- Engineering Installation Squadron (102-person unit) -

EIS Admin Function	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Commander (O-5)	1	225	
Commander's Conference Room		225	12-15 pers
First Sergeant	1	125	
Unit Administration	2	180	
Reproduction, Supplies, etc.		150	
Information Management	1	90	
Personnel	1	90	
Systems Telecom Engineering Mgr (STEM)	1	90	
Training NCOIC	1	90	
Testing Area		150	
Recruiter	1	90	
Ground Safety	1	90	
Disaster Preparedness	1	90	
Engineering Management Chief (O-4)	4	700	
Engineering Management Superintendent (E-8)	2	200	
Engineering Management	6	540	
Installations Chief (O-4)	1	175	
Installations Support Section	2	180	

Installations Wire Chief (O-4)	1	175	
Wire Maintenance NCOIC (E-9)	1	125	
EIS Admin Function (cont'd)	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Installations Electronics Chief (O-4)	1	175	
Radio/Wideband Maintenance NCOIC (E-8)	1	100	
Outside Plant Maintenance NCOIC (E-8)	1	100	
Workload Control Superintendent (E-9)	1	125	
Workload Control	1	90	
Logistics Chief (O-4)	1	175	
Logistics	1	90	
Logistics Plans/Mobility	2	180	
Quality Chief (E-8)	1	100	
Quality Assurance	3	270	
Subtotal	41	5,185	
Break Room		150	
Classroom / Multi-Purpose Area		1,710	114* pers @ 15 SF / 1.4 SM
Personal Lockers		510	102 pers @ 5 SF / .5 SM
Subtotal	41	7,555	
Overhead Factor (30%)		2,267	
Total EIS Admin Space		**9,822 SF / 912 SM**	

* Includes 3 Supply and 9 Vehicle Control/Maintenance personnel who are part of the EIS.

EIS Shop Function	**Auth. Pers**	**Authorized Area (SF)**	**Remarks**
Radar Maintenance Shop	10	900	
Radar Maintenance Storage		175	
Ground Radio Maintenance Shop	10	900	
Ground Radio Maintenance Storage		175	
Cable/Antenna Systems Maintenance Shop	21	1,890	
Cable/Antenna Systems Maintenance Storage		400	
Wideband Maintenance Shop	7	630	
Wideband Maintenance Storage		150	
Outside Plant Maintenance Shop	13	1,170	
Outside Plant Maintenance Storage		260	
Subtotal	61	6,650	
Overhead Factor (20%)		1,330	
Total EIS Shop Space		**7,980 SF / 741 SM**	

Total EIS Admin Space (41 pers)	9,822 SF / 912 SM
Total EIS Shop Space (61 pers)	7,980 SF / 741 SM
Total EIS Area (102 pers)	17,802 SF / 1,653 SM
Total EIS Area (rounded) – 102 pers	**17,800 SF / 1,653 SM**

- Information Warfare Aggressor Squadron (104-person unit) -

Information Warfare Aggressor Squadron Function	Auth. Pers	Auth. Area	
Comm-Electronics Training (IWAS) Command			
Commander (O-5)	1	225	
Commander's Conference Room		225	
First Sergeant	1	125	
Unit Training Manager	1	90	
Information Management, Personnel	2	300	
Director of Operations (O-5)	1	125	
Operations Superintendent	1	125	
JAG (O-4)	1	125	
Aggressor Operations Flight			
AOF Flight Commander (O-4)	1	100	
AOF Superintendent	1	100	
AOF Information Management	1	90	
AOF Alpha Team	6	270	
AOF Bravo Team	6	270	
AOF Charlie Team	6	270	
AOF Classified Classroom		324	
AOF Storage		350	
Computer Systems Vulnerability Flight			
CSV Flight Commander (O-4)	1	100	
CSV Alpha Team	7	315	
CSV Bravo Team	7	315	
CSV Charlie Team	6	270	
CSV Delta Team	6	270	
CSV Info Technology Assessment & Testing Lab		572	
CSV Storage		350	
Computer Network Operations Flight			
CNO Flight Commander (O-4)	1	100	
CNO Information Management	1	90	
CNO Alpha Team	8	360	
CNO Bravo Team	8	360	
CNO Charlie Team	8	360	
CNO Delta Team	8	360	
CNO Assessment Lab		704	
CNO Storage		350	
Computer Information Programs Flight			
CIP Flight Commander (O-4)	1	100	
CIP Information Management	1	90	
CIP Operations Training OIC (O-4)	1	100	
CIP Operations Training Office	2	180	
CIP Standards/Evaluation OIC (O-4)	1	100	
CIP Plans, Prgms, Sched & Logistics OIC (O-4)	1	100	
CIP Plans, Prgms, Sched & Logistics NCOIC	1	100	
CIP Plans, Prgms, Sched & Logistics Info Mgmnt	1	90	
CIP IT Range Management OIC (O-4)	1	100	
CIP IT Range Management NCOIC	1	90	

Intel Vault / SCIF			
Combined Intel Vault and SCIF	3	1,400	
Information Warfare Aggressor Squadron Function (cont'd)	**Auth.**	**Auth. Area (SF)**	**Remarks**
Common Areas			
Computer Applications Classroom #1		352	
Computer Applications Classroom #2		352	
Computer Applications Classroom #3		352	
Computer Applications Classroom #4		352	
Multi-purpose Room / Mission Brief/Conf Room		1,664	
Break Room		500	
Library		225	
Storage, Training Aids		250	
Mobility Storage		400	
Subtotal	104	14,887	
Overhead Factor (30%)		4,466	
Total IWAS Area		19,353	
Total IWAS Area (rounded) – 104 pers	**19,400 SF / 1,802 SM**		

6.1.6 Category Code 171-449, Reserve Forces Aeromedical Evacuation Training Facility.

Provides space for the training and operation of AE units, with areas designated for the commander, chief nurse, aircrew briefing, classrooms, locker rooms, medical and mobility storage, unit administration, training, and the control center.

Auth. Pers	Admin Space (SF / SM)	Mobility Storage (SF / SM) *	Total Area (SF / SM)
80-120	9,100 / 845	4,000 / 372	13,100 / 1,217
121-140	12,000 / 1,115	4,000 / 372	16,000 / 1,487

* Authorization allowed for enclosed storage of mobility assets.

6.1.7 Category Code 171-450, Reserve Forces Medical Training/Administration Facility.

Provides 10,000 SF / 929 SM of space for medical training and administration, with areas designated for the commander, chief nurse, physical and dental exams, immunization, classrooms, nurses station, bio-environmental engineering and environmental health, and medical administration to support a unit (maximizes joint use of active component facilities).

Exclusive use of 4,000 SF / 372 SM for admin and support space (labs) is authorized when sharing medical facilities with other DoD military components.

- Flying Units -

Medical Admin Function	Auth. Pers	Authorized Area (SF)	Remarks
Aero Medical Physician's Office	1	220	
Conference Room		180	
Health Services Administrator's Office	1	180	
Physician's Office (4)	4	300	
Clinic Administration	6	360	
Administrative Office	3	140	
Optometry Admin	1	100	
Medical Material Office	3	240	

BioEnvironmental Engineering Office	1	140	
Patient Affairs Office	3	180	
Medical Admin Function (cont'd)	**Pers**	**Authorized Area (SF)**	**Remarks**
Aeromedical Physician's Office	1	140	
Hospital/Clinic Services Office	6	360	
Environmental Health Office	1	140	
Dental Office	1	100	
Nursing Services	8	480	
Mental Health Office	4	240	
Outpatient Records	2	160	
Medical Record Storage		60	
Dental Records	1	80	
Training Room / Break Room / Waiting Room		1,100	
Personal Lockers		365	
Subtotal	47	5,265	
Overhead Factor (30%)		1,580	
Total Medical Admin Space		**6,845 SF / 636 SM**	

Note: Environmental Manager space charged to category code 171-445 (Reserve Forces Operations and Training).

Medical Training Function	**Pers**	**Authorized Area (SF)**	**Remarks**
Examination Room (4)	4	320	
EKG Room (2)	2	160	
Optometry Exam	1	120	
Dental Exam (2)	2	200	
Dental X-Ray Darkroom		120	
Audio Testing and Admin	2	150	
Immunization Room	2	160	
Pharmacy	2	160	
BEE Laboratory	2	120	
Equipment Staging		135	
Clinical Laboratory	4	220	
Environmental Health Laboratory	2	160	
Biomedical Equipment Maint and Storage	1	120	
Medical Material Storage		180	
Sterile Supply		100	
Dirty Linen		40	
Subtotal	24	2,465	
Overhead Factor (30%)		740	
Total Medical Training Space		**3,205 SF / 298 SM**	

Total Medical Admin Space (47 pers)	6,845 SF / 636 SM
Total Medical Training Space (24 pers)	3,205 SF / 298 SM
Total Medical Facility Area (71 pers)	10,050 SF / 934 SM
Total Medical Facility Area (rounded)	**10,000 SF / 929 SM**

- Tenants on Active Duty Installation (Co-located Facility) -

Medical Tenant Function	Auth. Pers	Authorized Area (SF)	Remarks
Aero Medical Physician's Office	1	220	
Conference Room		180	
Health Services Administrator's Office	1	180	
Physician's Office (4)	4	300	
Clinic Administration	6	360	
Administrative Office	3	140	
Medical Material Office	3	240	
BioEnvironmental Engineering Office	1	140	
Patient Affairs Office	3	180	
Dental Office	1	100	
Nursing Services	8	480	
Mental Health Office	4	240	
Outpatient Records	2	160	
Medical Record Storage		60	
Dental Records	1	80	
Subtotal	38	3,060	
Overhead Factor (30%)		918	
Total Medical Tenant Area		3,978	
Total Medical Tenant Area (rounded)		**4,000 SF / 372 SM**	

Note: Environmental Manager space charged to category code 171-445 (Reserve Forces Operations and Training).

- Geographically Separated Unit (GSU) -

Function	Auth.	Authorized Area (SF)	Remarks
Administrative Area		220	
Patient Records Storage		75	
Dental Records Storage		75	
Medical Material Storage		160	
BEE/EH Records		48	
Subtotal		578	
Overhead Factor (30%)		173	
Total GSU Area		751	
Total GSU Area (rounded)		**750 SF / 70 SM**	

Note: Only authorized if unit is assigned medical staff or if medical examinations are conducted onsite.

- Combat Readiness Training Center (Co-located Facility) -

CRTC Medical Function	Auth. Pers	Authorized Area (SF)	Remarks
Patient Administration		240	
Patient Records		50	
Laboratory Area		80	
Physician's Office (3)		280	
Examination Room (3)		280	
Treatment Room		300	
Medical Storage / Pharmacy		240	
Sterile Supply		100	
Audio Booth Testing		100	
Optometry		200	
EKG Room		100	
Dental Officer		100	
Dental Administration/Records		100	
Dental Exam/X-Ray		200	
Dirty Linen Storage		40	
Restrooms		180	
Mechanical/Corridors		840	
Subtotal		3,430	
Overhead Factor (30%)		1,029	
Total CRTC Medical Area		4,459	
Total CRTC Medical Area (rounded)		**4,500 SF / 418 SM**	

6.1.8 Category Code 171-471, Range Control House. [also consolidates category codes 171-472 (Range Supplies and Equipment Storage) and 171-473 (Range Target Storage and Repair)] This facility is designated for operations maintenance, workshop/repair, and storage, as related to an air-to-ground range (category code 179-481, Aircraft Range). The area is also used to store tools, equipment, and miscellaneous supplies, as well as repair targets.

Auth. Personnel	Authorized Area (SF / SM)
4 - 15	3,900 / 362
16 - 35	4,700 / 437
36 +	5,000 / 465

6.1.9 Category Code 171-475, Combat Arms Training Simulator (CATS) Facility. Provides space to install the laser-based, electronic training system for combat arms re-qualification.

Not a standalone structure, this 1,000 SF / 93 SM single room is designed for five (5) firing positions, with associated space for instructor(s), a carbon dioxide (CO_2) storage rack, etc.

The CATS facility should be co-located with the Security Forces training facility or the CATM on the range; in addition, it must be air conditioned and capable of being blacked out (no windows).

6.1.10 Category Code 171-476, Combat Arms Training and Maintenance (CATM) Facility. Used in conjunction with the Small Arms Range System (category code 179-475) with up to 21 firing stations, the CATM facility contains space for classroom instruction, program administration, weapons maintenance, and miscellaneous storage.

CATM Function	Auth. Pers	Authorized Area (SF)	Remarks
Superintendent / NCOIC	1*	100	
Instructors	6	390	65 SF / 6 SM per instructor
Admin Processing/Storage Area		60	
Classroom	20	700	Sized with 24" x 36" table per person
Weapons Maintenance Area		100	
Weapons Cleaning/Degreasing		0	Use area in security forces building
Range Supplies and Equipment Storage		0	Located with small arms range
Subtotal		1,350	
Overhead Factor		50	
Total CATM Area		1,400	
Total CATM Area (rounded)	**1,400 SF / 130 SM**		

* The full-time workforce is traditionally one person.

Note: No restrooms, mech/elec/comm., etc., because CATM is not intended as a stand-alone facility.
See category code 171-475 for CATS authorization and notes.
See category code 179-475 for small arms range authorization and notes.
See category code 730-835 for security forces authorization and notes.

a. Classroom. A demonstration/performance classroom, it must contain sufficient space to provide each student a chair and a table work surface of at least 24" x 36" / 610mm x 910mm (or 34" x 45" / 860mm x 1140mm for those attending machine gun or mortar training).

The classroom should contain a raised instructor's platform, aisle space for instructor access to individual tables, and provisions for videocassette equipment, 16mm movie projections, slide tape presentations, and overhead projection of viewgraphs.

b. Administrative Space. Provided for program administrators and combat arms personnel.

c. Weapons Maintenance Shop. Provides space for workbenches, hand tools, power tools, equipment, and spare parts storage. (Include a lavatory with potable water in the immediate area.)

d. Miscellaneous Storage. Provides space to store administrative supplies, training aids, classroom equipment, tools, and other miscellaneous items. (The size of this area is directly related to the type and quantity of training the CATM section conducts.)

6.1.11 Category Code 171-873, Aerial Port Training Facility. Provides for training the cargo and administrative functions of an aerial port flight / aerial port squadron, i.e., an aerial port flight comprised of C-130, C-17, and/or C-5 aircraft requires separate areas in which to (tower) dry and (folding room) pack cargo parachutes, pack and store training loads and supplies, and conduct administrative functions and classroom training.

Aircraft Type	Authorized Space (SF / SM)
C-5, C-130	14,200 / 1,316
C-17	17,700 / 1,641

Those facilities that store a modular airborne firefighting system (MAFFS) are authorized an additional 1,000 SF / 93 SM of covered, unheated space.

6.1.12 Category Code 171-875, Munitions Loading Crew Training Facility. Provides a separate-use space or facility at fighter bases for F-15, F-16, and A-10 aircraft 'hands-on' and classroom training of weapons loading personnel. It must have a fire suppression system, heating, and ventilation, and is normally attached to an aviation maintenance hangar.

Munitions Loading Crew Training Function	Auth. Pers	Auth. Area (SF)	Remarks
Aircraft Practice Loading Bay		7,500	
Classroom		440	For 20 pers
Loading Standardization Office (LSO)	4	360	
Subtotal	4	8,300	
Overhead Factor (15%)		1,245	[*]
Total Munitions Loading Crew Training Area		9,545	
Total Loading Crew Training Area (rounded)	**9,600 SF / 892 SM**		

* Increased to 30% when not connected with another facility.

6.1.13 Category Code 179-475, Small Arms Range System. Required to conduct firearms qualification and proficiency training with individual firearms such as rifles and handguns, each range must meet the requirements and specifications contained in AFI 32-2226.

For ANG purposes, this facility is an outdoor range system of 21 firing positions, designed and constructed with overhead baffles, side walls or berms, and a backstop or containment trap, all of which combine to prevent direct fired rounds and low-angled ricochets from leaving the immediate range area.

6.1.14 Category Code 179-481, Aircraft Range. Ranges are required to provide training in bombing, firing rockets and missles, and the use of automatic weapons. Types of ranges include air-to-air, air-to-ground, and ground-to-air.

The range must be a vacant area that can be used without endangering life or property. Area improvements normally required before use as a range are control facilities for scoring targets, minimum access facilities, and temporary communications facilities.

An aircraft range system consists of an outdoor impact range and basic support facilities that encompass the following category codes:

Category Code	Nomenclature	Auth. Pers	Authorized Area (SF / SM)
149-962	Air Traffic Control Tower, one per site - optional radio equipment room		225 / 20.9 100 / 9.3
149-967	Observation Tower (as required for range operations)		
171-471	Range Control House	4 - 15 16 - 35 36 +	3,900 / 362.3 4,700 / 436.6 5,000 / 464.5
214-425	Vehicle Maintenance Shop		[*]
214-428	Vehicle Operations Parking Shed		[*]
214-467	Refueling Vehicle Shop		750 / 69.7
219-947	Civil Engineer Storage Shed		1,000 / 93.0
422-258	Above-Ground Magazine Storage		600 / 55.7
442-257	Base Hazardous Materials Storage		300 / 27.9
730-839	Traffic Check House (case by case)		100 / 9.3
740-674	Fitness Center		300 / 27.9

* See corresponding category code description for computation.

149-962, Air Traffic Control Tower. Each air-to-ground range requires a smaller (225 SF / 20.9 SM) control tower to be used exclusively for the directing of air traffic over the range. A radio equipment room (100 SF / 9.3 SM) may be included in the structure, or developed as an adjacent stand-alone building.

149-967, Observation Tower. Each air-to-ground range requires one or two observation towers (as specified by the range layout).

171-471, Range Control House. Up to 5,000 SF / 464.5 SM for operations maintenance, workshop/repair, and minor storage, as related to the air-to-ground range. Also used to store tools, equipment, and miscellaneous supplies, as well as repair targets.

214-425, Vehicle Maintenance Shop. Applies only if no comparable host support is available; space to be computed and justified on a case-by-case basis.

214-428, Vehicle Operations Parking Shed. Provides enclosed parking for essential vehicles (in northern climes).

219-947, Civil Engineer Storage Shed. Provides covered storage space for installation and maintenance equipment, supplies, and tools necessary to support an air-to-ground range that do not need warehouse storage but do need protection from the weather.

422-258, Above-Ground Magazine Storage. For smoky surface-to-air missiles (SAMs), triple-A burst simulators, and other approved pyrotechnics such as smoke generators; must satisfy quantity-distance (QD) criteria and be sited as approved by DDESB.

442-257, Base Hazardous Materials Storage. Required for the storage of hazardous materials that cannot be stored in base supply and equipment sheds or warehouses.

730-839, Gate House. Controls entry to all restricted (and selected controlled) areas, if justified.

740-674, Fitness Center. Used for daily physical training, conditioning, and recreation.

Chapter 7. CATEGORY GROUP 21 MAINTENANCE FACILITIES

7.1 General Criteria

Hangars and docks provide space for scheduled inspections, landing gear retraction tests, the weighing of aircraft, major maintenance on fuel systems, airframe repairs, and ensuring Technical Order (TO) compliance and making related modifications.

All maintenance facilities must be located in accordance with explosives safety standards.

7.1.1 Category Code 211-111, Maintenance Hangar. Maintenance hangars do not include shops or administrative areas. Requirements beyond the maintenance floor area include limited space for a tool crib, parts storage, a latrine, and a utility room.

Aircraft / Mission	Authorized Space (SF / SM)
F-15, F-16, A-10 (up to 18 PAI)	28,000 / 2,601
C-130 (up to 12 PAI)	28,000 / 2,601
C-17 (up to 12 PAI)	39,800 / 3,697
C-5 (up to 12 PAI)	70,000 / 6,503
KC-135 (up to 10 PAI)	28,000 / 2,601
KC-10 (up to 10 PAI)	43,000 / 3,995

Note: If PAI exceeds number shown, see Table 7.1 of AFH 32-1084.
MH-60G requirements included under Aerospace Pararescue and Recovery Hangar (category code 141-185).

[See General Purpose Aircraft Maintenance Shop (category code 211-152) and AMU Shop (category code 211-154) for shop and administrative requirements as an addition to a hangar.]

7.1.2 Category Code 211-152, General Purpose Aircraft Maintenance Shop. Provides space for specialized maintenance activities such as fabrication/sheetmetal shop, egress shop, machine shop, welding shop, wheel and tire shop, environmental shop, electrical systems shop, pneumatic/hydraulic shop, battery shop, and composite shop.

The facility also includes space for work, administration, classrooms, tool cribs, bench stock, latrines, lockers, storage, security supplies, and repairable parts.

Aircraft / Mission	Authorized Space (SF / SM)
F-15, F-16, A-10	19,100 / 1,774
C-130, KC-135, C-5, C-17 *	22,600 / 2,010

* C-17 requires additional 7,000 SF / 650 SM for composite material shop.

Aircraft Maintenance Shop Function	Authorized Area (SF) Fighter, Attack Aircraft	Bomber, Cargo, Tanker
Field Maintenance Offices	700	500
Structural/Sheetmetal	2,000	2,500
Egress Shop	1,500	0
Machine Shop	2,000	2,000
Metal Processing (Welding)	2,000	2,000
Wheel & Tire Shop	1,500	2,000
Classroom	1,300	1,000
Tool Crib (Metal Control)	1,000	2,000
Environmental Shop	600	400
Electric Systems Shop	500	1,500
Pneudralic Shop	1,000	1,500
Battery Shop	400	500
Lockers	400	400
Composite Material / Fiberglass Shop	1,000	500
ISO Phase	0	2,000
Subtotal	15,900	18,800
Overhead Factor (20%)	3,180	3,760
Total Shop Area	19,080	22,560
Total A/C Maint Shop Area (rounded)	**19,100 SF / 1,774 SM**	**22,600 SF / 2,099 SM**

7.1.3 Category Code 211-153, Non-Destructive Inspection Shop. Provides space for field-level, non-destructive inspection of aircraft components, a process that investigates the quality, integrity, properties, and dimensions of materials and components without damaging or impairing their serviceability through the use of optic, magnetic, eddy-current, ultrasonic, radiographic, infrared, ultraviolet, and spectrometric devices.

Inspection spaces include a joint oil-analysis program (JOAP) lab, X-ray room, film developing room, tool crib and parts storage, locker space, penetrant storage, magnetic particle lines, and office areas.

The NDI shop should be co-located with the engine shop or other such facility, and joint use with the host or other military components is encouraged.

Aircraft / Mission	Authorized Space (SF / SM)
F-15, F-16, A-10, C-130, KC-135	3,000 / 279
C-5, C-17	4,000 / 372

7.1.4 Category Code 211-154, Aircraft Maintenance Unit (AMU) Shop. Provides space for supervision, administration, training, dispatch, analysis, scheduling, debriefing, ready room, arm/disarm crew shelter, flightline-assigned Dash-21 equipment, flightline vehicles, tool kit, tool room and bench stock, maintenance and storage of non-powered support equipment, and locker space.

Aircraft Type	Gross AMU Area (SF / SM)
F-15	10,000 / 929
F-16, A-10	8,000 / 743
C-5	9,200 / 855
C-17	9,300 / 864
C-130	8,900 / 827
KC-135	9,200 / 855

7.1.5 Category Code 211-157, Jet Engine Inspection and Maintenance Shop. Provides space for scheduled inspections, routine maintenance, and operational-level repair of aircraft engines. Major functions performed in the shop include disassembly, inspection, repair, replacement, technical order compliance adjustment, and assembly of engine components.

Separate areas for the storage of spare engines, covered storage for engine trailers, a bearing and inspection shop, parts storage and a tool crib, parts cleaning, a propeller shop (if required), and office administration are also provided.

Space is authorized for both three-level and two-level maintenance operations, the difference being that three-level maintenance is conducted entirely by the local unit, whereas two-level maintenance requires depot involvement.

Aircraft / Mission	3-Level Auth Area (SF / SM)	2-Level Auth Area (SF / SM)
Fighter aircraft (24 PAI)	13,000 / 1,208 *	10,000 / 929 *
KC-135E (10 PAI)	10,000 / 929	7,000 / 650
KC-135R (10 PAI / 16 PAI)	4.000 / 372 or 6,000 / 557	4,000 / 372
C-5 (12 PAI)	6,000 / 557	6,000 / 557
C-17 (12 PAI)	10,000 / 929	10,000 / 929
XX-130 (8-12 PAI)	13,000 / 1,208	9,000 / 836

* Includes 2,000 SF / 189 SM of unheated, covered storage for engines, trailers.

7.1.6 Category Code 211-159, Aircraft Corrosion Control Facility. Provides an environmentally controlled area to wash aircraft, as well as hangar space for corrosion treatment, corrosion repair, paint stripping, and the repainting of entire aircraft. This facility also provides space for the corrosion control shop, which includes preparation and drying areas, abrasive blasting rooms, booths for mixing and/or applying paint, tool storage, lockers, and administrative areas.

Corrosion control shops are additionally required to support small aircraft components, aerospace ground equipment, vehicles, weapons and munitions, and avionics shops.

Aircraft / Mission	Hangar Space (SF / SM)	Shop Space (SF / SM) *	
Fighter aircraft	7,500 / 697	1,500 / 139	9,000 / 836
XX-130, KC-135	- not authorized -	1,500 / 139	[**] + 1,500 / 139
C-17	39,800 / 3,697	1,700 / 158	41,500 / 3,855
C-5	80,700 / 7,497	2,500 / 232	72,500 / 6,732

* Add 1,600 SF / 149 SM for plastic media stripping booth (if authorized by ANG/CEP).
** Task can be performed in hangar or fuel cell hangar.

7.1.7 Category Code 211-161, Corrosion Control Utility Storage Building. This facility – normally situated adjacent to the wash racks, corrosion control shop, or strip/paint hangar – is a separate building used to store cleaning supplies, cleaning tools, paint, corrosion and stripping supplies, tools, etc.

A maximum area of 800 SF / 74 SM is authorized.

7.1.8 Category Code 211-179, Fuel System Maintenance Dock. Provides covered, protected space for aircraft fuels systems maintenance, and contains heating, plumbing, electricity, compressed air systems, mechanical ventilation, fume sensing and alarm systems, fire extinguishing systems, and wash-down drainage trenches.

Normally one per base, but additional docks may be authorized if there is a demonstrable requirement.

Aircraft / Mission	Hangar Space (SF / SM)	Shop Space (SF / SM)	Total Auth Area (SF / SM)
Fighter aircraft	7,500 / 697	1,500 / 139	9,000 / 836 [*]
XX-130	28,000 / 2,601	1,700 / 158	29,700 / 2,759 [*]
KC-135	28,000 / 2,601	2,500 / 232	30,500 / 2,833
C-17	39,800 / 3,698	2,500 / 232	42,300 / 3,930
C-5	39,800 / 3,698	3,500 / 325	43,300 / 4,023

* Add up to 4,000 SF / 372 SM of concrete pad to store C-130 and fighter aircraft fuel tanks.

7.1.9 Category Code 211-193, Test Stand Support Facility. Provides an 800 SF / 74.3 SM ready room for A-10 aircraft where engines can be prepared or modified without return to the main engine shop.

[Used in conjunction with category code 116-664, Power Check Pad.]

7.1.10 Category Code 214-425, Vehicle Maintenance Shop. Maintains all authorized government-owned – not GSA or leased – vehicles (GOVs) assigned to a base. Provides space and facilities for lubrication, inspection, general repair, and replacement of major assemblies (such as above-ground vehicle hoists), as well as welding, upholstery, testing, cleaning, and minor parts fabrication. Also houses support functions such as maintenance control and analysis sections, tool room, parts room, locker rooms, and offices.

Vehicle Equivalents	Number of Bays	Authorized Space (SF / SM) *
10 - 30	2	3,600 / 335
31 - 50	2	4,600 / 427
51 - 100	3	6,200 / 576
101 - 200	4	7,000 / 650
201 - 300	5	7,800 / 725
301 - 400	6	8,600 / 799
401 - 500	7	9,400 / 873
501 - 600	8	10,200 / 945
601 – 700	9	11,000 / 1,022
701 - 800	10	11,800 / 1,096

* Includes 1,800 SF / 167 SM for wash bay.

Note: Do not include refueler vehicles; see Refueling Vehicle Shop (category code 214-467).
Includes space for Vehicle Operations Administration functions (category code 610-121).
Joint facility authorized for co-located units, based on total number of vehicles (excluding refueler vehicles).

Again, note that the table of vehicle equivalents (above) does <u>not</u> include GSA or leased vehicles.

7.1.11 Category Code 214-428, Vehicle Operations Parking Shed. Provides space for essential vehicles in areas of heavy snowfall or extreme heat (see paragraph 1.5o).

For heavy snowfall areas, fully enclosed sheds will be authorized; only sunshades are authorized for areas subject to extreme heat.

Vehicle Equivalents	Authorized Space (SF / SM)
5 - 50	2,500 / 232
51 - 150	4,000 / 372
151 - 250	6,000 / 557
251 - 350	8,000 / 743
351 - 450	10,000 / 929
451 or more	[Contact ANG/CEPD]

7.1.12 Category Code 214-467, Refueling Vehicle Shop. AFOSH STD 127-20 prohibits servicing or repairing fuel servicing tank units and hydrant hose trucks in maintenance shops with other vehicles; therefore, the refueling vehicle shop is a separate, complete maintenance and repair bay that includes a work area, mechanical and ventilation rooms, an office, supplies and parts storage, and tool storage.

This facility is normally co-located with Vehicle Maintenance Shop (category code 214-425).

Type of Unit	Authorized Space (SF / SM)*
Flying	1,500 / 139
Non-flying	750 / 70

* Add 550 SF / 51 SM (for utility and restroom) if shop is a stand-alone facility.

7.1.13 Category Code 215-552, Weapons and Release Systems Shop. Provides space for the overhaul and repair of fighter aircraft weapons release and gun systems that include (but are not limited to) bomb racks, weapons pylons, ejection racks, aircraft gun systems, etc. Also provides shop and tool space for the maintenance/upkeep of weapons loading tools and equipment, as well as dispatch to the flight line.

Besides normal shop space, the facility encompasses a gun and/or ejector unit cleaning room, maintenance offices, a dispatch office, and a bench stock room, plus storage space for test equipment, alternate mission equipment (AME), spare gun systems, and mobility equipment.

Weapons Elements Admin Function	Auth. Pers	Auth. Area (SF)	Remarks
NCOIC	1	125	
Weapons Element Superintendent / 1SGT	1	125	
Administration	2	180	
Testing Room		150	
Quality Assurance	1	100	
Safety	1	100	
Maintenance Control (MOC) – E-9	1	125	
Armament Management NCOIC	1	100	
Weapons Load Management NCOIC	1	100	
Break Room		200	
Subtotal	9	1,305	
Overhead Factor (20%)		261	

Total Weapons Elements Admin		**1,566**	

Weapons Elements Support Function	Auth. Pers	(SF)	Remarks
Gun Services Shop	7	800	
Gun Cleaning Shop	2	250	
Tool Crib	2	200	
Weapons Release Shop	11	1,100	
Weapons Loading Shop	33	3,000	
Locker Room (M)		1,000	Includes lockers, shower, latrine
Locker Room (F)		500	Includes lockers, shower, latrine
Subtotal	55	6,850	
Overhead Factor (20%)		1,370	
Total Weapons Elements Support		**8,220**	

Weapons Elements Storage	Auth.	Auth. Area (SF)	Remarks
Weapons Release Storage Space		6,000	Up to 24 PAI
Total Weapons Elements Storage		**6,000**	

Total Weapons Elements Admin Space (9 pers)	1,566 SF / 145 SM
Total Weapons Elements Support Space (55 pers)	8,220 SF / 764 SM
Total Weapons Elements Storage Space	6,000 SF / 557 SM
Total Weapons Elements Area	15,786 SF / 1,467 SM
Total Weapons Elements Area (rounded)	**15,800 SF / 1,468 SM**

- HH-60 & HC-130 Aircraft -

Rescue Weapons Elements Admin Function	Auth. Pers	Auth. Area (SF)	Remarks
Weapons NCOIC	1	125	Up to 5 HH-60 and 4 HC-130
Weapons Load Management NCOIC	1	125	
Armament Management NCOIC	1	100	
Subtotal	3	350	
Overhead Factor (30%)		105	
Total Rescue Weapons Elements Admin		**455**	

Rescue Weapons Elements Support Function	Pers	Auth. Area (SF)	Remarks
Gun Services Shop		550	
Gun Cleaning Shop		200	
Tool Crib		100	
Subtotal	11	850	
Overhead Factor (20%)		170	
Total Rescue Weapons Elements Support		**1,020**	

Rescue Weapons Elements Storage	Auth.	Auth. Area (SF)	
Weapons and Associated Storage Space		400	
Overhead Factor (20%)		80	
Total Rescue Weapons Elements Storage		**480**	

Total Rescue Weapons Elements Admin Space (3 pers)	455 SF / 42 SM
Total Rescue Weapons Elements Support Space (55 pers)	1,020 SF / 95 SM
Total Rescue Weapons Elements Storage Space	480 SF / 45 SM
Total Rescue Weapons Elements Area	1,955 SF / 182 SM
Total Rescue Weapons Elements Area (rounded)	**2,000 SF / 186 SM**

7.1.14 Category Code 216-642, Conventional Munitions Maintenance Shop. Includes missile maintenance bays, other inspection/processing bays, parts/tool storage, restrooms, locker space, a trailer maintenance bay, a paint bay, and covered storage; see category codes 422-257 and 422-264 (Base Hazardous Materials Storage, Storage Igloo) for munitions storage.

The facility must be sited to comply with the quantity-distance (QD) separation criteria established in AFM 91-201, *Explosives Safety Standards.*

Admin Area	FT Authorized Pers				Authorized Area (SF)				Remarks
					F-15	F-16	A-10	HH-60	
Flight Chief (NCOIC)	1	1	1	1	125	125	125	125	
Conference Room					125	125	125	125	
Production Chief	1	1	1	1	90	90	90	90	
Material Chief	1	1	1		90	90	90	0	
System Chief	1	1	1		90	90	90	0	
Munitions Control / CAS B	1	1	1	1	600	600	600	300	
Classroom	33	51	91	20	693	995	1,530	440	
Break Room					200	200	200	200	
Personal Lockers					165	255	455	125	
Admin Area Subtotal	38	56	96	23	2,178	2570	3,350	1,405	
Overhead Factor (30%)					653	771	992	422	
Total Admin Area					**2,830**	**3,341**	**4,342**	**1,827**	

Maintenance Area	FT Authorized Pers				Authorized Area (SF)				Remarks
	F-15	F-16	A-10	HH-60	F-15	F-16	A-10	HH-60	
Paint Bay	1	1	1	1	500	500	500	500	
Missile Maint Bay (2 each)	2	2	2		2,480	2,480	2,480	0	
Trailer Maint (w/ 200 SF tool rm)	2	2	2	1	1,200	1,200	1,200	600	
ALS/ULS Proc/Insp 30MM Munits	2	2	2		800	800	800	0	
Practice Process BDU Proc/Insp	1	1	1		900	900	900	0	
Maintenance Area Subtotal	8	8	8	2	5,880	5,880	5,880	1,100	
Overhead Factor (10%)					588	588	588	110	
Total Maintenance Area					**6,468**	**6,468**	**6,468**	**1,210**	

Storage Area					Authorized Area (SF)				
	F-15	F-16	A-10	HH-60	F-15	F-16	A-10	HH-60	
Munits Support Equip Strg (inert)	1	1	1	1	4,000	4,000	4,000	1,000	
Storage Area Subtotal	1	1	1	1	4,000	4,000	4,000	1,000	
Overhead Factor (10%)					400	400	400	100	
Total Storage Area					**4,400**	**4,400**	**4,400**	**1,100**	

	F-15	F-16	A-10	HH-60
Total Admin Area (SF)	2,830	3,341	4,342	1,827
Total Maintenance Area (SF)	6,468	6,468	6,468	1,210
Total Storage Area (SF)	4,400	4,400	4,400	1,100
Munitions Maint Shop Subtotal (SF)	13,698	14,209	15,210	4,137
Total Munitions Maintenance Shop Area (rounded)	**13,700 SF / 1,273 SM**	**14,200 SF / 1,319 SM**	**15,200 SF / 1,412 SM**	**4,100 SF / 381 SM**

7.1.15 Category Code 217-712, Avionics Shop. Major items that require shop and storage space include storage racks for serviceable equipment and equipment awaiting maintenance or parts, coding devices, technical data and code books, and pod lifting devices, cradles, and storage racks. Some storage space provides physical security and corrosion protection for delicate electronic equipment; if possible, combine maintenance and storage facilities to share the secure storage area.

The Avionics Shop accommodates organizational and intermediate-level maintenance activities for airborne communication, camera, bombing system, and TSEC/COMSEC equipment (which includes secure voice, IFF, SIF, data link pods, etc.).

Aircraft / Mission	Authorized Space (SF / SM)
KC-135 (10 PAI)	5,400 / 502
C-17 (12 PAI)	5,400 / 502
C-130E/H (up to 12 PAI)	6,400 / 595
Fighter aircraft (up to 24 PAI)	12,700 / 1,180
C-5 (12 PAI)	15,000 / 1,394

7.1.16 Category Code 217-713, ECM Pod Shop and Storage. This function (normally added to category code 217-712, Avionics Shop) contains maintenance areas and storage for pods and associated equipment, as well as for LANTIRN, RECCE, HARM, etc.; authorized only when specific pods are assigned at an installation for the following missions:

Mission	Authorized Space (SF / SM)
ECM Pod Shop/Storage (fighters)	[see next table]
RECCE/TARS Pod Shop/Storage (fighters)	2,500 / 232
HARM Pod Storage (fighters)	1,000 / 93
Air Defense ECM Facility	1,000 / 93
LANTIRN/LITENING (fighters)	2,500 / 232 *
C-130XX, HC-130, KC-135, C-17	2,700 / 251

* Add 1,200 SF / 112 SM of covered space for mobile set.

Function	Authorized Space (SF) per Number of Sets of ECM Pod Support Equipment			
	1 Set	2 Sets	3 Sets	4 Sets
Maintenance	1,950	3,480	5,010	6,540
Storage	2,850	5,700	8,550	11,400
Total Area	**4,800 SF / 446 SM**	**9,180 SF / 853 SM**	**13,560 SF / 1,260 SM**	**17,940 SF / 1,667 SM**

Note: Each set of pod support equipment maintains 18 ECM pods.

7.1.17 Category Code 218-712, Aircraft Support Equipment (ASE) Shop/Storage Facility. [Formerly 'Aerospace Ground Equipment (AGE) Facility'] The ASE shop inspects, maintains, repairs, and services both powered and non-powered equipment that directly supports aircraft, as well as powered-munitions ASE (if assigned).

The facility normally includes maintenance stalls with workbenches, hoists, indoor wash rack (in cold weather climates), tool crib, bench stock, sealed lead acid battery servicing area, engine exhaust extraction system, administrative space, and personnel locker space.

Auth. Pieces Support Equipment	Authorized Area Admin / Shop (SF / SM) *	Covered Storage (SF / SM) **	Open Storage (SY / SM) ***
0 - 50	2,500 / 232	2,000 / 186	40 / 33
51 - 100	3,500 / 325	3,000 / 279	60 / 50
101 - 150	4,500 / 418	4,000 / 372	85 / 71
151 - 200	5,500 / 511	5,000 / 465	115 / 96
201 - 250	6,500 / 604	6,000 / 557	145 / 121
251 - 300	7,500 / 697	7,000 / 650	175 / 146
301 - 350	8,500 / 790	8,000 / 743	205 / 171
351 - 400	9,500 / 873	9,000 / 836	235 / 196
401 – 450	10,500/ 975	10,000/ 929	265/ 222
451 or more	Contact ANG/CEPD	Contact ANG/CEPD	Contact ANG/CEPD

* Denotes maximum totally enclosed shop areas.
** For severe weather or heavy snow locations, may include minimal heat.
*** Use ASE Storage Yard (category code 852-273).

Note: Includes powered and non-powered equipment.
Co-located units authorized joint facility, based on sum of all authorized ASE items.
Do not count munitions trailers as ASE; put in Conventional Munitions Shop (category code 216-642).

7.1.18 Category Code 218-852, Survival Equipment Shop. The shop – which may be co-located with Life Support in Squadron Operations (category code 141-753) – works on parachutes, flotation equipment (life rafts, life preservers, emergency escape slides), and the repair and manufacture of fabric items. Parachutes and flotation equipment must be periodically inflated, inspected, and repacked; survival items and accessories are concurrently inspected.

Special provision must be made for the storage of explosives, in accordance with AFM 91-201.

Aircraft / Mission	Authorized Space (SF / SM)
Fighter aircraft	3,100 / 288
C-130, EC-130	4,200 / 390
HC-130	6,000 / 557
C-5, C-17, KC-135	5,300 / 492

7.1.19 Category Code 218-868, Regional Precision Measurement Equipment Lab (PMEL). This facility provides field-level maintenance and calibration of test, measurement, and diagnostic equipment (TMDE) for assigned units. PMEL personnel calibrate and certify TMDE at regular intervals; they also provide emergency assistance on TMDE, as required.

The laboratory requires an environment controlled for temperature, humidity, and dust; calibration and repair activity must also be free of interfering vibration.

PMEL Function	Authorized Area (SF)	Remarks
Administrative Offices	250	
Technical Library	230	
Calibration and Repair	7,000	Incl. radiac range, dimensional measurement lab
Scheduling/Receiving	1,711	
Equipment Cleaning	98	
Multi-purpose Room	250	Serves as conference/break/training room
Air Lock	54	
Subtotal	9,593	
Overhead Factor (30%)	2,878	

Total PMEL Area	12,471	
Total PMEL Area (rounded)	**12,500 SF / 1,161 SM**	

7.1.20 Category Code 219-943, Civil Engineer Pavement and Grounds Facility. A building (8,000 SF / 743 SM) normally comprised of three work centers, each with its own small (100 SF / 9.3 SM) office: 'pavements' (maintains paved surfaces; constructs and repairs airfield, roadway, and parking areas), 'equipment operations' (handles use of construction and special purpose equipment, such as backhoes, dump trucks, airfield sweepers, and bulldozers), and 'grounds' (base landscaping, maintenance of road signs and fencing).

7.1.21 Category Code 219-944, Civil Engineer Maintenance Facility. The primary production center of civil engineering, its activities include structures (metals, carpentry, masonry, etc.), electrical (interior/exterior), power production, utilities (plumbing, water and waste, etc.), liquid fuels, entomology, HVAC (heating, ventilation, air conditioning, refrigeration, EMCS, etc.), and others. Each activity needs the space, layout, and equipment of this facility for shop, administrative, and training functions.

Normally co-located with Civil Engineer Administration (category code 610-127).

Operations and Maintenance	Auth. Pers UTC	Auth. Pers Other	Authorized Area (SF)	
Work Control (4 @ 90 SF)	4		360	Positions filled from shop
Material Control (2 @ 90 SF)	2		180	
Shop Supervisors (6 @ 45 SF)	6		270	
Tool Room / Bench Stock			370	
Subtotal	12	0	1,180	
Electrical, Int/Ext (4 @ 60 SF)	4		240	
Power Production (4 @ 60 SF)	4		240	
HVAC (5 @ 60 SF)	5		300	
Pavements / Const Eqpt (6 @ 60 SF)	6		360	
Structures (5 @ 60 SF)	5		300	
Utils, Plmbg/Wtr/Waste (6 @ 60 SF)	6		360	
Liquid Fuels (3 @ 60 SF)	3		180	
Entomology (2 @ 60 SF)	2		120	
Subtotal	35	0	2,100	
Mobility Equip Stg / Pallet Buildup			1,500	3 pallets x 250 SF + 750 SF
Mobility Bag Storage			1,135	63 personnel x 3 bags x 6 SF
Subtotal	0	0	2,635	
Subtotal O & M Area	47	0	5,915	
Overhead Factor (20%)			1,185	
Total CE O & M Area	**7,100 SF / 660 SM**			

Note: Assumes 63 Prime BEEF personnel.
Add 20 SF / 1.9 SM per S-Team member.
Excludes CRTCs and locations with Title 5 BOS.
Includes mobility storage for Prime BEEF.
Add 4,000 SF / 372 SM for CEMIRT team.

7.1.22 Category Code 219-947, Civil Engineer Storage Building. This 4,000 SF / 372 SM, unheated, enclosed facility is necessary to provide storage for certain items of equipment and supplies needed for installation operations and maintenance that do not require regular warehouse storage, yet must be protected from the weather (e.g., lumber, construction materials, etc.).

A geographically separated unit (GSU) is authorized one 1,000 SF / 93 SM building.

Chapter 8. CATEGORY GROUP 42 EXPLOSIVES FACILITIES

8.1 General Criteria

The quantity and type of explosives storage facilities at an installation will vary with operating requirements, the quantity and type of munitions to be stored or handled, site characteristics, and the type of storage structures preferred (or required) at the storage site.

8.1.1 Category Code 422-258, Above-Ground Magazine Storage. The above-ground magazine varies in size, depending on the volume of munitions to be stored. This is the preferred method of storing explosives if adequate surrounding land area is available to meet safety requirements.

Mission	Authorized Space (SF / SM)
Air Defense	2,000 / 186
Tanker/Airlift (no WRM)	1,000 / 93
Tanker/Airlift (with WRM)	*

* See category code 422-264 for authorized igloos.

Magazine Content (F-15, F-16)	Authorized Space (SF)
Practice Storage (built-up BDUs)	1,440
Combined Storage (1.3, 1.4 munitions)	1,500
Training Missile Storage	1,000
20mm Ammunition	1,200
Total Magazine Area (F-15, F-16)	**5,140 SF / 476 SM**

Magazine Content (A-10)	Authorized Space (SF)
Practice Storage (built-up BDUs)	1,440
Combined Storage (1.3, 1.4 munitions)	1,500
Training Missile Storage	1,000
30mm Ammunition	1,800
Total Magazine Area (A-10)	**5,740 SF / 533 SM**

8.1.2 Category Code 422-264, Storage Igloo. Igloo magazines are used to store all types of explosives, and are preferred for mass detonating explosives where moisture condensation is not a problem. They are earth covered, of either concrete or steel-arch construction, and required if an adequate safety buffer of surrounding vacant land is not available.

Mission	Authorized Space (SF / SM)
Air Defense	8,600 / 799
General Purpose Fighter	3,600 / 334
Tanker/Airlift (with WRM)	1,800 / 167

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Chapter 9. CATEGORY GROUPS 44, 45 STORAGE FACILITIES: COVERED, OPEN, SPECIAL PURPOSE

9.1 General Criteria

Storage facilities provide space to keep, service, dispense, and dispose of a myriad of goods and materials, ranging from the hazardous (such as flammable liquids) to the 'everyday' (e.g., personnel uniform items).

9.1.1 Category Code 442-257, Base Hazardous Materials Storage. Provides adequate and properly configured space to store hazardous materials prior to their use, as well as the temporary storage of hazardous waste before proper disposal. This category code is divided into the four functions below:

a. Hazardous Materials (HAZMAT) Pharmacy. Each installation is required to establish a HAZMAT pharmacy program to positively control the procurement, storage, distribution, reuse, and disposal of identified hazardous items such as paints, oil, solvents, corrosives, other chemicals, and bottled gases (compressed gas cylinders are tracked by the HAZMAT pharmacy, but stored under a simple roof structure). Tenant ANG units with a host-provided HAZMAT pharmacy are not authorized a separate facility.

Mission requirements and weapons systems supported will determine the HAZMAT pharmacy's actual size; general authorization is given in the following table:

HAZMAT Pharmacy Function	Authorized Area (SF)
Administration / Customer Service	250
Materials Handling/Storage	1,195
Subtotal	1,445
Overhead (15%)	217
HAZMAT Pharmacy Area	1,662
Total HAZMAT Pharmacy Area (rounded)	**1,700 SF / 158 SM**

The specific size of a HAZMAT pharmacy will be determined by ANGRC Environmental and Engineering, based on the installation's hazardous waste generation storage requirements.

b. Hydrazine Storage and Servicing Facility. Provides space for the regional servicing and storage of hydrazine fuel containers at installations with F-16 aircraft equipment emergency power units that operate on hydrazine; 800 SF / 74.3 SM authorized.

c. Hydrazine Storage Facility. Provides space for the storage of hydrazine fuel containers with no servicing requirement at installations with F-16 aircraft equipment emergency power units that operate on hydrazine; 200 SF / 18.6 SM is authorized.

d. Central Hazardous Waste Accumulation Point. A single, central space on an installation for hazardous waste accumulation is included under category code 452-252, Base Supply Open Storage.

9.1.2 Category Code 442-258, Cryogenics (LOX/LIN) Storage. All bases with a requirement for liquid oxygen (LOX) for aircrews' breathing purposes will possess either a LOX generating/storage capability or a LOX storage capacity to satisfy the requirement. The decision to rely on a generating/storage capability or on storage capacity and commercial suppliers will be based on individual base analyses to determine the best procedure to ensure meeting the requirements of each base.

The normal source for breathable LOX within the United States, its territories, and possessions will be by procurement from commercial suppliers wherever they are available to meet quantity and specification requirements. In these instances, base storage capacity will be sufficient to provide 30 days' peacetime requirement or 15 days' 'alert' – whichever is greater – plus war reserve material (WRM) and enough storage to permit receipt of resupply in economical quantities from suppliers.

In every instance, a minimum of at least two tanks (which are centrally procured equipment items) will be provided in multiples of 400, 2,000, or 5,000 gallons – 1,515, 7,571, or 18,927 liters, respectively – to ensure continuous operation and permit periodic purging and decontamination of the tanks.

LOX generating and storage facilities require fencing for safety protection.

See AFI 23-201 *Fuels Management* and AMC for liquid nitrogen (LIN) storage facility design requirements. Provide canopies over tank(s) in areas of snow and ice to ensure safe footing for personnel, and in areas of extremely hot weather to minimize boil-off losses.

9.1.3 Category Code 442-628, Base Supplies and Equipment Shed. Authorized for flying locations only, this facility is used to store base supplies, equipment, and material which does not require closed warehouse space but must be protected from the weather because of the nature of the material or the manner in which it is packed. Lumber storage exclusive of that stored by the BCE may also be included, as may space for receiving and shipping activities.

Shed storage space of 2,500 SF / 232 SM is authorized, constructed without complete side or end walls; see Table 1 for CRTC and Table 2 for RED HORSE authorizations.

9.1.4 Category Code 442-758, Base Supply and Equipment Warehouse. Warehouse functions include bulk and bin storage of materials, receiving, shipping, packing, crating, equipment storage and issue, general supply, base issue supply point, personnel clothing storage and issue, and contracting functions. Space for mobility storage not already identified elsewhere may be included in this facility or separate one(s); however, space will not be duplicated.

The total scope of the host base supply facility may be increased when the warehouse is required to support either other units on base or geographically separated units (GSUs) that have a separate mission but receive supply support from the host base.

Normally co-located with Base Supply Administration (category code 610-122).

Mission	Total Area Authorized (SF / SM)
Fighter aircraft	23,200 / 2,155
C-130, KC-135, KC-10	19,900 / 1,849
C-17	30,200 / 2,806
C-5	34,700 / 3,224

Organization	Total Area Authorized (SF / SM)
Air Control Squadron (ACS)	15,600 / 1,450
Air Traffic Control Squadron (ATCS)	9,000 / 836
Combat Communications Group (CCG)	2,150 / 200
Combat Communications Squadron (CCS)	15,600 / 1,450
Engineering Installation Squadron (EIS)	9,000 / 836

9.1.5 Category Code 452-252, Base Supply Open Storage. A paved area used to store materials authorized for open storage. Surface improvement of the area is required to facilitate the operation of materials-handling equipment.

The size of the area is determined by its overall dimensions, with no deductions for interior trackage and permanent roads. Exterior lights and fencing may be installed as required to deter theft.

This category code also includes the hazardous waste central collection capability; satellite collection is addressed by the facility that generates the hazardous waste. The central collection point is usually a concrete pad (with utilities), upon which to mount a commercially available, prefabricated shed for the storage of small amounts of hazardous waste until they are removed/manifested from the base.

9.1.6 Category Code 452-255, Civil Engineer Open Storage. The Base Civil Engineer's activity requires fenced, lighted, and paved open storage space for construction materials and equipment that can withstand exposure to the elements. The storage yard is usually a part of the CE complex (which includes the maintenance shop, storage buildings and sheds, and the pavement and grounds building), and is often integrated with the CE vehicle subpool (established under criteria for category code 852-261, Vehicle Parking Operations).

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Chapter 10. CATEGORY GROUP 61 ADMINISTRATIVE FACILITIES

10.1 General Criteria

Administrative space requirements normally include private offices (supervisory), conference/training space, open office areas (staff), administrative support areas (reproduction, workspace, files storage, publications/technical libraries), bathrooms, lockers, break areas, utility space, and receiving areas.

10.1.1 Category Code 610-121, Vehicle Operations Administration. This space requirement is included under Vehicle Maintenance Shop (category code 214-425).

10.1.2 Category Code 610-122, Base Supply Administration. Base supply administrative functions include management and systems, material management, operations support, supply customer training, contracting office, traffic management office (TMO), squadron commander, and orderly room.

Normally co-located with Base Supplies and Equipment Warehouse (category code 442-758).

Flying Unit Admin Function	Pers.	Authorized Area (SF)	Remarks
Commander	1	150	
Commander's Conference Room		225	Sized for 12-15 pers
First Sergeant	1	100	
Orderly Room	4	360	
Chief of Supply	1	150	
Base Contracting Supervisor	1	120	
Base Contracting Administration	4	360	
Computer Operations	4	360	
Document Control	1	120	
TMO Supervisor	1	100	
SATO	1	90	
Unit Deployment Managers	3	270	
Management Systems Supervisor	1	120	
Management Systems	10	900	
Freight & Passenger	6	540	
Material Storage & Distribution	7	630	
RSP Administration	4	360	
IEU Administration	4	360	
Training/Break Room		1,295	Sized for max. of 70 pers
Personal Lockers (M/F)		350	Five (5) SF/UTA pers
Subtotal	54	6,960	
Overhead Factor (30%)		2,088	
Total Flying Unit Admin Area		9,048	
Total Flying Unit Admin Area (rounded)	**9,100 SF / 845 SM**		

Note: A typical base supply unit is composed of 25 full-time and 70 UTA personnel.
Some of the 'administrative' functions above may be physically located in the warehouse area, or may be 'contiguous' to the other administrative functions.
Should any of the above functional areas be located in another facility (e.g., Base Contracting, SATO, etc.), they will carry the Base Supply Admin category code with them, which will reduce the overall Base Supply Admin authorization accordingly.

Geographically Separated Unit (GSU) Admin Function	Auth. Pers.		Remarks
Chief of Supply	1	150	
Base Contracting Administration	4	360	
Storage		75	
Personal Lockers (M/F)		25	Five (5) SF/UTA pers
Subtotal	5	610	
Overhead Factor (30%)		183	
Total GSU Admin Area		793	
Total GSU Admin Area (rounded)	**800 SF / 74 SM**		

Note: A typical GSU base supply unit is composed of 1 full-time and 5 UTA personnel.

10.1.3 Category Code 610-127, Civil Engineer Administration. Contains the principal administrative offices of the Base Civil Engineer's (BCE's) organization, i.e., the Commander / BCE's office, the deputy BCE's office, areas for squadron administration, engineering, operations, resources, etc. Also contains a drafting area, several conference rooms, and various administrative support areas.

Co-located with Civil Engineer Maintenance Facility (category code 219-944).

Civil Engineer Admin Function	Auth. Pers UTC	Other		Remarks
Commander / BCE (O-5)	1		225	
Commander's Conference Room			225	
First Sergeant	1		125	
Operations Officer / Deputy BCE	1		125	
Admin / Lobby / Waiting Area		1	340	State-funded secretarial pers
Chief of Operations / Facility Mgr.	1		125	
Real Estate (1 @ 125 SF, 50 SF stg.)		1	175	State pers (federally funded)
Training (1 @ 90 SF, 50 SF stg.)		1	140	Non-UTC federally funded pers
Testing Room (6 pers cap @ 25 SF)			150	
Engineering (2 @ 90 SF, 50 SF stg.)	2		230	
Drafting (4 @ 90 SF)	4		360	
Reproduction / Plans / Storage			400	
ABO (1 @ 90, 5 @ 45 SF; 50 SF stg.)	6		365	
Classroom			1,295	Sized for 70 personnel
Personal Lockers (63 @ 5 SF)			315	
Break Area			100	
Subtotal	16	3	4,695	
Overhead Factor (30%)			1,405	
Total CE Admin Area	**6,100 SF / 567 SM**			

Note: Assumes 63 Prime BEEF personnel. Add 100 SF / 9.3 SM per S-team member. Includes mobility storage for Prime BEEF. Add 4,000 SF / 372 SM and 6 personnel for CEMIRT team.

10.1.4 Category Code 610-128, Base Personnel Office. This space requirement is normally included under Reserve Forces Operational Training (category code 171-445).

10.1.5 Category Code 610-129, Weapons Systems Maintenance Management Facility. Accommodates the offices of the named activity, composed of the following units:

Maintenance Control
Plans, Scheduling, and Documentation
Material Control
Quality Control, Records, and Analysis
Chief of Maintenance (and administrative staff)

Aircraft Type	Authorized Space (SF / SM)
Fighter aircraft	9,000 / 836
C-130, KC-10, C-17, C-5	7,400 / 687
KC-135	11,400 / 1,059

WSMM Function, Fighter Aircraft	F/T	UTA	Net Area (SF)	Remarks
Commander (O-6)	1	1	250	
Commander's Conference Room			250	Sized for 12-15 pers
First Sergeant		1	125	
Orderly Room / Administration	1	2	200	
Lobby / Waiting Area			100	
Admin Storage Area			50	
Media Center			50	Copy machine, fax, etc.
ISSA Manager (O-4)	1	1	175	
Training Manager	1	3	270	
Testing Room			400	Maximum 25 pers
Quality Assurance Officer (O-4)		1	175	
Quality Assurance Supervisor (E-9)	1	1	125	
Quality Assurance	4	7	500	
Programs & Mobility	2	2	200	
Production Analysis	2	6	540	
Plans & Scheduling	2	4	360	
Tech Order Distribution Center	1	2	240	
Maintenance Officer (O-4)	1	1	175	
MOC Supervisor (E-8)		1	100	
Maintenance Operations Control	3	13	600	
Wing Weapons Standardization		5	425	
Classroom / Training Room			1,060	Sized for 55 pers
Break Room			150	
Personal Lockers (M/F)			275	Sized for 55 pers
Handicapped Restrooms (M/F)			100	
Subtotal	20	51	6,895	
Overhead Factor (30%)			2,069	(Circulation, restrooms, mech., elec.)
Subtotal			8,964	
Total Fighter Area (rounded)	**9,000 SF / 836 SM**			

WSMM Function, Tanker Aircraft	Pers Assigned F/T	UTA	Net Area (SF)	Remarks
Commander (O-6)	1	1	250	
Commander's Conference Room			250	Sized for 12-15 pers
First Sergeant		1	250	AGS and MXS
Orderly Room / Administration	1	8	800	AGS, MXS, and LSF
Lobby / Waiting Area			100	
Admin Storage Area			50	
Media Center			50	Copy machine, fax, etc.
ISSA Manager (O-4)		1	175	
Training Manager	1	3	270	
Testing Room			400	Maximum 25 pers
Quality Assurance Officer (O-4)		1	175	
Quality Assurance Supervisor (E-9)	1	1	125	
Quality Assurance	3	5	400	
Production Analysis	1	2	180	
Tech Order Distribution Center	1	2	240	
LSF Officer (O-4)	1	1	175	
LSF Supervisor (E-9)	1	1	125	
Maintenance Operations Control	2	10	500	
Plans & Scheduling	2	5	450	
Programs & Mobility	2	2	200	
Engine Management	1	2	200	
AGS Officer (O-5)	1	1	225	
Assistant AGS Officer (O-4)		1	175	
AGS Chief (E-9)	1	1	125	
Maintenance Officer (O-5)	1	1	225	
Assistant Maintenance Officer (O-4)		1	175	
Maintenance Chief (E-9)	2	2	250	
Maint Section Supervisor (E-8)	3	3	300	Accessories, FAB, and Avionics (1 each)
Munitions	1	1	100	
Classroom / Training Room			1,140	Sized for 60 pers
Break Room			200	
Personal Lockers (M/F)			300	Sized for 60 pers
Handicapped Restrooms (M/F)			100	
Subtotal	27	58	8,730	
Overhead Factor (30%)			2,619	(Circ., restrooms, mech., elec., comm., etc.)
Subtotal			11,349	
Total Tanker Area (rounded)	**11,400 SF / 1,059 SM**			

WSMM Function, Airlifter Aircraft	Pers Assigned		Net Area (SF)	
Commander (O-6)	1	1	250	
Commander's Conference Room			225	Sized for 12-15 pers
First Sergeant		1	125	
Orderly Room / Administration	1	2	200	
Lobby / Waiting Area			100	
Admin Storage Area			50	
Media Center			50	Copy machine, fax, etc.
Executive Officer (O-4)	1	1	175	
Training Manager	1	1	125	
Testing Room			400	Maximum 25 pers
Quality Assurance Officer (O-4)		1	175	
Quality Assurance Supervisor (E-9)	1	1	125	
Quality Assurance	4	6	450	
Programs & Mobility	2	2	200	

Programs & Mobility	2	2	200	
Plans & Scheduling	2	0	180	
Tech Order Distribution Center	1	2	240	
Maintenance Officer (O-4)	1	1	175	
MOC Supervisor (E-9)	0	1	125	
Maintenance Operations Control	5	5	450	
Maintenance Operations	1	7	630	
Classroom / Training Room			715	Sized for 35 pers
Break Room			150	
Personal Lockers (M/F)			175	Sized for 35 pers
Handicapped Restrooms (M/F)			100	
Subtotal	21	32	5,680	
Overhead Factor (30%)			1,704	(Circulation, restrooms, mech., elec.)
Subtotal			7,384	
Total Airlifter Area (rounded)	**7,400 SF / 687 SM**			

10.1.6 Category Code 610-142, Traffic Management Facility. This space requirement is included under Base Supply Administration (category code 610-122) and Base Supply and Equipment Warehouse (category code 442-758).

10.1.7 Category Code 610-243, Group Headquarters. This space requirement is usually included under Reserve Forces Operational Training (category code 171-445); however, ANG is not normally authorized this facility.

10.1.8 Category Code 610-249, Wing Headquarters. Authorized for large wing units with two or more squadrons (multiple aircraft) or a prescribed personnel strength greater than 1,500.

This 2,000 SF / 186 SM space is normally co-located with Reserve Forces Operational Training (category code 171-445).

10.1.9 Category Code 610-287, Specified Headquarters. Space may be provided for ANG military personnel assigned to ANG state headquarters based on the authorized military manning. Such space may be provided at an ANG base or at a consolidated headquarters location, but cannot be duplicated or exceed the maximum total space authorization for this function (the category for state ANG headquarters is specified in ANGI 38-01, *ANG State Headquarters Manpower and Organization Guide.*)

To receive ANG funding, this facility must be located on federal property under ANG control.

State Category	Authorized Space (SF / SM)
A	3,000 / 279
B	3,300 / 307
C	3,700 / 344

10.1.10 Category Code 610-911, Social Actions. This space requirement is normally included under Reserve Forces Operational and Training Facility (category code 171-445).

10.1.11 Category Code 610-913, Disaster Preparedness (aka 'Readiness'). Provides the planning, management, training, and operations to prepare all personnel to protect resources from the effects of attacks and/or disaster situations, restore primary mission assets, and fulfill the humanitarian disaster relief responsibilities of commanders in situations of nuclear, biological, chemical, and/or conventional attack, major peacetime accidents, or large-scale natural disasters.

Add 500 SF / 47 SM more storage and filing area to the authorized space requirement of 3,000 SF / 279 SM in the event of two or more flying squadrons.

Normally co-located with the BCE Maintenance Shop (category code 219-444).

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Chapter 11. CATEGORY GROUPS 72, 73 DINING HALL AND QUARTERS, PERSONNEL SUPPORT

11.1 General Criteria

Category groups 72 and 73 include essentially basic (i.e., minimal) ANG facilities for the feeding of personnel and their temporary/short-term lodging, and a rather comprehensive space authorization for the resident security force.

11.1.1 Category Code 722-351, Dining Hall. ANG dining facilities will be consolidated to serve both officer and enlisted personnel at the same location. Space requirements vary according to average authorized strengths of units.

Where active and reserve units are adjacent or co-located, facilities are to be jointly used to the maximum extent possible.

Authorized Personnel	Dining Hall Space (SF / SM)
501 - 1,000	8,500 / 791 *
1,001 - 1,200	10,300 / 957 *
1,201 - 1,400	12,100 / 1,124 *
1,401 - 1,600	14,900 / 1,386 *

* Based on 3 seatings.

Food service for geographically separated units (GSUs) is handled through contract feeding operations.

Authorized Personnel	GSU Dining Area (SF / SM)
up to 150 (Pkg A)	2,000 / 186 *
151 - 300 (Pkg B)	4,000 / 372 **
301 + (Pkg C)	5,400 / 502 **

* Based on 2 seatings. ** Based on 3 seatings.

Package A
1 – Upright heater box (with wheels)
1 – Upright cooler box (with wheels)
1 – Electric, four-well serving line (with wheels, 220-volt)
1 – Coffee pot, dual 3-gallon (Bunn-O-Brewers)
1 – Microwave oven, commercial grade
2 – Upright, single-door, reach-in coolers (glass front)
1 – Upright, single-door, reach-in freezer (stainless steel front)

Package B
2 – Upright heater boxes (with wheels)
1 – Upright cooler box (with wheels)
1 – Electric, four-well serving line (with wheels, 220-volt)
1 – Coffee pot, dual 3-gallon (Bunn-O-Brewers)
1 – Microwave oven, commercial grade
1 – Upright, single-door, reach-in cooler (glass front)
2 – Upright, single-door, reach-in freezers (stainless steel front)

Package C
3 – Upright heater boxes (with wheels)
2 – Upright cooler boxes (with wheels)
1 – Electric, four-well serving line (with wheels, 220-volt)
1 – Coffee pot, dual 3-gallon (Bunn-O-Brewers)
1 – Microwave oven, commercial grade
2 – Upright, single-door, reach-in coolers (glass front)
1 – Upright, single-door, reach-in freezer (stainless steel front)

11.1.2 Category Code 725-517, Troop Camp (Quarters). This category is used for combat readiness training centers (CRTCs), professional military education centers (PMECs), training and education centers (TECs), regional training sites (RTSs), and other formal training school sites where economically feasible. These facilities include sleeping rooms, lounges or day rooms, study areas, vending areas, laundries, and bathrooms, depending on classification and need.

Rapid runway repair (RRR) sites are not authorized Troop Camp (Quarters).

Type of Training *	Sleeping Space @ pers (SF / SM)	Gross Space @ pers (SF / SM)
CRTC Officers	100 / 9	150 / 14
" E-7 through E-9	100 / 9	140 / 13
" E-5 through E-6	90 / 8	120 / 11
" E-1 through E-4	72 / 7	100 / 9
PMEC	135 / 13	250 / 23

* Authorization for CRTC/PMEC only; ANG/CEP must approve all other quarters requests.

11.1.3 Category Code 730-835, Security Forces Operations. This facility is the command center for the direction of security, law enforcement, crime prevention, investigation, training, and information, as well as for personnel security and resource protection. It also serves as an armory and the site for unit supply.

The facility includes control centers such as Central Security Control (CSC). Offices in the facility include the Installation Chief of Security, Operations Superintendent, Security Forces Manager, other command operations, and support sections.

Adequate parking space must be provided for patrol/security vehicles, visitors, and assigned personnel.

'Typical' Security Forces (SF) Function	Pers Assigned F/T	UTA	Auth. Area (SF)	Remarks
Commander		1	175	
Commander's Conference Room			225	Sized for 12-15 pers
First Sergeant		1	120	
Orderly Room / Administration	1	5	450	
Lobby / Waiting Area			150	
Admin Processing/Storage Area			100	
Installation Chief of Security	1		150	
Security Forces Manager		1	120	
Operations Superintendent	1	1	150	
Training Manager	1	2 + 1	200	
Testing Rm, Distance/Unit Learning		4 + 2	225	
Quality Control / Standards Eval		2 + 1	180	
Flight Chiefs Area	4	6	300	
Program Management Work Area	5	12	600	
Supply/Mobility Management	1	3	270	
Central Security Control	1	2 + 1	300	
Weapons Vault	2	3 + 1	400	Sized for UTC, CATM, day-to-day weapons
Weapons Cleaning Area	2	20	200	
Guardmount/Trng/Class/Break Rm	31	73	1,440	Sized for 80 pers [1,570 SF for 95 pers *]
Personal Lockers (M/F)	31	73	400	Sized for 80 pers [475 SF for 95 pers *]
Handicapped Restrooms (M/F)			100	
Subtotal			6,155	
Overhead Factor (30%)			1,845	
Subtotal			8,000	
Mobility Storage			3,500	[4,120 SF for 'alert' SF unit *]
Total 'Typical' SF Area	**11,500 SF / 1,068 SM**			**[12,400 SF / 1,152 SM for 'Alert' *]**

* 'Alert' locations are authorized 900 SF more of total area (130, multi-purpose room; 75, lockers; 620, mobility storage; etc.).

'Typical' Mobility Storage (SF)	Mobility bags, 80 pers	450	**'Alert' Mobility Storage (SF)**	Mobility bags, 95 pers	540
	Six (6) built-up pallets	1,500		Seven (7) built-up pallets	1,750
	Equipment lockers, 80 pers	800		Equipment lockers, 95 pers	950
	ATVs (4, with trailers)	500		ATVs (5, with trailers)	630
	Miscellaneous	250		Miscellaneous	250
		3,500			4,120

Note: A 'typical' Security Forces unit has 31 full-time (F/T) and 73 UTA (plus 10% overage) personnel; an 'alert' Security Forces unit has 41 F/T and 86 UTA (plus 10% overage) personnel.
The full-time workforce includes technician, AGR, and state employees.
The UTA workforce includes the recent plus-up of 16 personnel (57 to 73).
The mobility storage space does not have to be co-located with the admin space, but can be in other available, on-base storage space (base supply, etc.).
See category code 171-476 for CATM authorization and notes, code 171-475 for CATS authorization and notes.

'Small' Security Forces (SF) Function	Pers Assigned F/T	UTA	Net Area (SF)	Remarks
Commander				
Commander's Conference Room				
First Sergeant				
Orderly Room / Administration	1		100	
Lobby / Waiting Area			50	
Admin Processing/Storage Area			70	
Installation Chief of Security	1		250	Includes conference room space
Security Forces Manager				
Operations Superintendent	1		150	

'Small' SF Function (cont'd)	F/T	UTA		Remarks
Training Manager	1		100	
Testing Rm, Distance/Unit Learning				
Quality Control / Standards Eval	1		100	
Flight Chiefs Area	2		150	
Program Management Work Area	1		100	
Supply/Mobility Management	1		100	
Central Security Control	1		100	
Weapons Vault	1		300	Sized for Honor Guard, day-to-day weapons
Weapons Cleaning Area	1		100	
Guardmount/Training/Class Room	18		440	Sized for 20 pers
Break Room	10		100	
Personal Lockers (M/F)	18		100	Sized for 20 pers
Handicapped Restrooms (M/F)			100	
Subtotal			2,310	
Overhead Factor (30%) *			690	
Subtotal			3,000	
Miscellaneous Storage			300	
Total 'Small' SF Area	**3,300 SF / 307 SM**			

Note: A 'small' Security Forces unit has 18 full-time (plus 10% overage) personnel.
The full-time workforce includes technician, AGR, and state employees.
The storage space does not have to be co-located with the admin space,
but can be in other available, on-base storage space (base supply, etc.).
See category code 171-476 for CATM authorization and notes, code 171-475 for CATS authorization and notes.

'Deployed / Visiting Unit' CRTC Security Forces (SF) Function	Pers Assigned F/T	UTA	Net Area (SF)	Remarks
Commander		1	175	Includes meeting room space
First Sergeant		1	90	
Orderly Room / Administration		2	180	
Admin Processing/Storage Area			100	
Central Security Control		2	150	
Weapons Vault			200	Sized for deployed weapons/ammunition
Weapons Clean/Repair/Clear Area			150	
Guardmount/Meeting Room		73	1,440	Sized for 80 pers
Personal Lockers (M/F)		73	400	Sized for 80 pers
Break Room			100	
Subtotal			2,985	
Overhead Factor (30%)			895	
Subtotal			3,880	
Deployed Storage			2,120	* [see below]
Total 'Deployed/Visit' SF Area	**6,000 SF / 557 SM**			

* ATVs (8, with trailers)	1,000 SF / 92.9 SM
Equipment lockers, 80 pers	800 SF / 74.4 SM
Paintball equipment	120 SF / 11.2 SM
General storage	100 SF / 9.3 SM
Unit storage	100 SF / 9.3 SM

Note: A 'deployed/visiting' CRTC Security Forces unit has 73 UTA (plus 10% overage) personnel.
The full-time workforce includes technician, AGR, and state employees.
The deployed storage space does not have to be co-located with the admin space,
but can be in other available, on-base storage space (base supply, etc.).

11.1.4 Category Code 730-837, Security Entry Control Facility. An entry control facility (ECF) is required at all alert aircraft areas, and at other restricted areas as critical mission requirements dictate.

The ECF includes the entry control building and the personnel and vehicle entrapment areas connected to the surrounding security fence. It must accommodate at least two individuals, controls for the mechanically operated gates, exchange badge racks, and controls for pedestrian turnstiles. A minimum area of 300 SF / 27.9 SM is required, and additional space may be authorized to meet mission requirements.

11.1.5 Category Code 730-839, Gate House. Controls entry to installations, restricted areas, and selected controlled areas by security police assigned to the facility checking vehicle and pedestrian traffic identification and credentials. Passes may also be issued and visitor logs completed at the traffic check house, and intrusion alarms that might terminate within the facility may be monitored by assigned personnel to control entry to the alarmed activities.

The gate house should be positioned between the entrance and exit lanes of traffic and provide 360° visibility (never less than 180°). The facility should protect assigned personnel from small arms fire and fragmentation of explosive devices. Exterior lighting must illuminate all approaches, turn lanes, intersections, and areas adjacent to the facility, and be positioned to aid the entry controller in recognizing identification credentials without impairing his or her vision by excessive glare.

Additionally, an auto/truck/bus/RV inspection lane (with means to block unauthorized passage) should be provided adjacent to the incoming traffic flow to accommodate the further examination of entering vehicles and occupants beyond the currently posted level of ID review.

Facility Basis	Authorized Space
Flying installation, main gate	300 SF / 28 SM
" secondary entrance	100 SF / 9 SM (each)
Non-flying installation, main gate *	100 SF / 9 SM
Entry control point (ECP) *	36 SF / 3 SM (per location)

* If Security Forces personnel are authorized.

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Chapter 12. CATEGORY GROUPS 74, 75 MORALE, WELFARE, AND RECREATION FACILITIES

12.1 General Criteria

The requirement for morale, welfare, and recreation (MWR) facilities varies according to the using service. ANG installations rarely require them, and there is no non-appropriated funds (NAF) mechanism available to the Guard for such purposes. However, when MWR facilities are authorized, the following must be observed:

a. All projects using appropriated funds to acquire or develop MWR facilities must be approved as exceptions to DoD criteria under guidance in ANGI 32-8001, *Civil Engineering Programming Policies and Procedures.*

b. Guidance on facility assignment, construction, and alteration appears in ANGI 32-8001, *Civil Engineering Programming Policies and Procedures.*

c. Troop labor shall not be used for maintenance, repair, minor construction, or major construction on non-appropriated funded projects.

d. An exercise area and a running track are authorized at ANG installations when necessary to fulfill the requirements of training evaluation.

12.1.1 Category Code 740-674, Fitness Center. This facility is used for the daily physical training and conditioning of authorized customers, including active duty military and Air Reserve members, their family members, retirees, DoD civilians, and contractors (as determined by base agreement).

Fitness Center Function	Authorized Space (SF) One-squadron Flying Unit	Authorized Space (SF) Two-squadron Flying Unit	GSU Space (SF)
Physical Fitness Room	1,440	1,700	600
Men's Latrine/Locker/Changing Room	300	500	
Women's Latrine/Locker/Changing Room	200	340	
Janitor/Storage Closet	60	60	
Total Fitness Center Area	**2,000 SF / 186 SM**	**2,600 SF / 242 SM**	**600 SF / 59 SM**

Note: A fitness center is not authorized for ANG units on active or reserve Air Force bases that have access to a physical fitness center within 2 miles of the ANG cantonment area.
The physical fitness center is to be co-located with another base function(s) and is not meant to be a stand-alone facility; mechanical room, entryway, and circulation not included.
If separate latrine/locker/changing rooms are readily available on the base facility, an appropriate portion of that facility's common areas should be charged to this category code (740-674).
GSUs should use available latrine/locker/changing rooms.
This authorization is separate from similar authorization provided under Fire Crash/Rescue Station (category code 130-142) and Squadron Operations (category code 141-753).

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Chapter 13. CATEGORY GROUP 85 ROADS AND STREETS

13.1 General Criteria

Roads and streets are authorized in support of ANG functions.

13.1.1 Category Code 852-261, Vehicle Parking Operations. Parking space is provided for authorized organizational (military) vehicles.

Number of Authorized Vehicles *	Gross Area (SY / SM)
50 – 100	3,800 / 3,178
101 – 150	5,825 / 4,870
151 – 250	9,700 / 8,110
251 – 350	13,600 / 11,371
351 – 450	17,500 / 14,632
451 – 650	25,250 / 21,112
651 – 850	32,500 / 27,173
851 – 1,000	41,500 / 34,698

* Excludes specialty vehicles such as firetrucks, etc.

13.1.2 Category Code 852-262, Non-Organizational Vehicle Parking. DoD's policy is to provide off-street parking at military installations, rather than build wider streets to accommodate on-street parking. Where facilities are located near each other, parking areas should be combined and reduced to the extent consistent with normal operations.

Vehicle parking areas shall be lighted, surfaced, and have sufficient slope to control drainage; surfacing may be either flexible or rigid pavement, to be determined by least life-cycle cost.

Parking areas shall be designed for 90-degree alignment whenever practicable, using 35 SY / 29.3 SM per vehicle to provide maneuvering room for parking, as well as space for normal interior lanes. The maximum number of parking spaces shall not exceed 75 percent of authorized UTA strength.

13.1.3 Category Code 852-269, Refueler Vehicle Parking. A 100 SF / 9.3 SM shed is normally provided adjacent to the parking area for the storage of equipment and appurtenances related to operator maintenance requirements. The parking area is usually located close to (and considered part of) the jet fuel storage and operations complex.

Allow 600 SY / 501.7 SM of parking space for each authorized refueler or hydrant-servicing vehicle.

13.1.4 Category Code 852-273, Aircraft Support Equipment (ASE) Storage Yard. Required for the standby storage of powered and non-powered ASE that has been repaired and is awaiting dispatch, this area is paved; if justified, it can also be fenced and lighted.

See ASE Shop/Storage Facility (category code 218-712) for space authorization.

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Chapter 14. ABBREVIATIONS, ACRONYMS, REFERENCES

14.1 Abbreviations and Acronyms

AAS	aircraft arresting system
ABO	air base operability
A/C	aircraft
AC&W	aircraft control and warning
ACS	air control squadron
ACTS	aircrew combat training system
ADPE	automated data processing equipment
AE	aeromedical evacuation
AFH	Air Force Handbook
AFI	Air Force Instruction
AFM	Air Force Manual
ALCF	airlift control flight
ALS/ULS	ammunition loading system / universal loading system
AME	alternate mission equipment
AMU	aircraft maintenance unit
ANG	Air National Guard
ANG/CEP	Air National Guard Civil Engineering Programs Development
ANGETL	Air National Guard Engineering Technical Letter
ANGH	Air National Guard Handbook
ANGI	Air National Guard Instruction
APOD	aerial port of debarkation
APOE	aerial port of embarkation
ASE	aircraft support equipment
ASOC	air support operations center
ASOS	air support operations squadron
ATCS	air traffic control squadron
ATSO	ability to survive & operate
BAI	backup aircraft inventory
BCE	base civil engineer
BCTF	base central test facility
BDU	bomb, dummy unit
BL	barrel(s) [measurement]
BNCC	base network control center
BOS	base operating support
BRITE	bright radar indicator tower equipment
BSPO	base security police operations
CAS B	combat ammunition system - base
CATM	combat arms training & maintenance
CATS	combat arms training simulator
CCG	combat communications group
CCI	controlled crypto item
CCS	combat communications squadron
CCTV	closed-circuit television

CDK	containerized deployment kitchen
CEMIRT	civil engineer maintenance inspection and repair team
CM	cubic meter(s) [measurement]
CFT	cockpit familiarization training
CFP	communications focal point
CF	cubic foot(feet) [measurement]
COMSEC	communications security
CONUS	continental United States ('lower 48')
COPAR	contractor-operated parts store
CRTC	combat readiness training center
CY	cubic yard(s) [measurement]
DCC	damage control center
DESC	Defense Energy Support Center
DLA	Defense Logistics Agency
DoD	Department of Defense
DP	disaster preparedness
E&I	engineering and installation
ECF	entry control facility
ECM	electronic countermeasures
ECP	entry control point
EIS	engineering installation squadron
EMCS	energy management control system
EOD	explosive ordnance disposal
EPT	egress procedures trainer
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FOD	foreign object damage
FT	foot(feet) [measurement]
GCA	ground-controlled approach
GFE	government-furnished equipment
GL	gallon(s) [measurement]
GOV	government-owned vehicle
GPM	gallons per minute [measurement]
GSU	geographically separated unit
HARM	high-speed anti-radiation missile
HAZMAT	hazardous material
HMP	hazardous materials pharmacy
HQ	headquarters
HVAC	heating, ventilation, and air conditioning
IBDCZ	inhabited building distance clear zone
ID	identification
IFF	identification, friend or foe
IFR	instrument flight rules
JOAP	joint oil-analysis program
LANTIRN	low-altitude night terrain infrared navigation
LF	linear foot(feet) [measurement]
LIN	liquid nitrogen
LM	linear meter(s) [measurement]
LMR	land mobile radio
LOX	liquid oxygen
LT	liter(s) [measurement]

M	meter(s) [measurement]
MAFFS	modular airborne fire-fighting system
MAJCOM	major command
MAPS	mobile aerial port squadron
MCE	mission control element
METNAV	meteorological navigational
MKT	mobile kitchen trailer
MOGAS	motor gas (automotive gasoline)
MRTS	medical readiness training site
MSE	munitions support equipment
MWR	morale, welfare, and recreation
NAF	non-appropriated funds
NCOIC	non-commissioned officer in charge
NDI	non-destructive inspection
O&T	operations and training
OPS	operations
PAI	primary aircraft inventory
PAPI	precision approach path indicator
PLASI	pulsed-light approach slope indicator
PME	professional military education
PMEC	professional military education center
PMI	preventive maintenance inspection
POL	petroleum, oil, and lubricants
PPIF	photo processing and interpretation facility
Prime BEEF	Priority Improved Management Effort – Base Engineer Emergency Force
Prime RIBS	Priority Improved Management Effort – Readiness in Base Services
PT	physical training
RAMS	rapid assembly munitions system
RAPCON	radar approach control
RECCE	reconnaissance
RED HORSE	Rapid Engineers Deployable Heavy Operations Repair Squadron, Engineers
REILS	runway end identifier light system
REOTS	regional equipment operators training site
ROSC	regional operations support center
RRR	rapid runway repair
RSP	readiness spares package
RTS	regional training site
S-Team	staff augmentation team
SAM	surface-to-air missile
SCBA	self-contained breathing apparatus
SF	square foot(feet) [measurement]
SIF	selective identification feature
SM	square meter(s) [measurement]
SOI	statement of intent
SRC	survival recovery center
STEM	systems telecommunications engineering manager
STOL	shortfield takeoff and landing
SY	square yard(s) [measurement]
TACAN	tactical air navigation
TAI	total aircraft inventory
TALCE	tactical airlift control element

TARS	tactical air reconnaissance system
TBD	to be determined
TEC	training and education center
TMO	traffic management office
TO	technical order
TSEC/COMSEC	tactical support element communications / communications security
UDCC/CFP	unit deployment control center / communications focal point
UPS	uninterruptible power supply
UTA	unit training assembly
UTC	unit type code
VASI	visual approach slope indicator
VFR	visual flight rules
VHF	very high frequency
VI	visual information
VOR	VHF omni-directional range
VTC	video teleconferencing
WRM	war readiness material

14.2 References

AFH 32-1084	Standard Facility Requirements Handbook
AFI 32-1043	Managing Aircraft Arresting Systems
AFM 91-201	Explosives Safety Standards
ANGI 38-01	ANG State Headquarters Manpower and Organization Guide
NGR(AF) 86-1	Policies and Procedures
UFC 3-260-1	Airfield and Heliport Planning and Design

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Table 1. ANG Combat Readiness Training Center (CRTC) Facility Requirements Programming Guide

Category Code	Nomenclature	Total Req. (SF / SM)	Planning Factors
113-321	Apron		[Contact ANG/CEPD]
121-111	Petroleum Operations Building		See corresponding category code.
123-335	Vehicle Fueling Station		See corresponding category code.
124-135	Jet Fuel Operating Storage		See corresponding category code.
131-111	Communications Facility	10,600 / 985	8,900 SF / 827 SM if ANG a tenant.
134-375	RAPCON Facility		[Contact ANG/CEPD]
141-383	Audio/Visual Facility	2,500 / 232	
141-453	Base Operations	3,000 / 279	
141-753	Squadron Operations	14,400 / 1,338	For two facilities, add 2,400 SF / 223 SM for second command post.
171-212	ACMI/ACTS (Flight Simulator) Facility		[Contact ANG/CEPD]
171-443	Reserve Forces General Training	6,000 / 557	
171-445	Reserve Forces Operational Training	22,000 / 2,044	5,000 SF / 465 SM - assembly hall, host; 12,000 SF / 1,115 SM - visiting units.
171-450	Reserve Component Medical Training	3,600 / 335	
171-475	Combat Arms Training Simulator (CATS)	1,000 / 93	Five firing positions; single room, not standalone.
171-476	Combat Arms Training Maintenance (CATM)	1,800 / 167	
179-475	Small Arms Range	21 positions	See AFI 32-2226.
179-511	Firefighter Training Facility	1 each	Support building (1,600 SF / 149 SM).
211-111	Maintenance Hangar	28,000 / 2,601	Also functions as Fuel Cell / Corrosion Control.
211-152	General Purpose Shop	4,000 / 372	
211-153	NDI Shop	400 / 37	
211-154	Aircraft Maintenance Unit (AMU)	4,000 / 372	
214-425	Vehicle Maintenance Shop		See corresponding category code.
214-428	Vehicle Operations Parking Shed		See corresponding category code.
214-467	Refueling Vehicle Shop		See corresponding category code.
216-642	Conventional Munitions Shop	10,120 / 940	
217-712	Avionics Shop	3,000 / 279	
218-712	Aircraft Support Equipment (ASE) Shop		See corresponding category code.
218-852	Survival Equipment Shop	900 / 84	
219-943	CE Pavements & Grounds Facility	8,000 / 743	
219-944	CE Maintenance Facility	7,000 / 650	
219-947	CE Storage Building	8,000 / 743	
422-257	Segregated Storage Magazine	2,400 / 223	Four bays at 600 SF / 56 SM each.
422-264	Storage Igloo	3,600 / 335	

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Table 1. ANG Combat Readiness Training Center (CRTC) Facility Requirements Programming Guide (cont'd)

Category Code	Nomenclature	Total Req. (SF / SM)	Planning Factors
442-257	Base Hazardous Materials Storage	1,700 / 158	
442-258	LOX / LIN Storage		See corresponding category code.
442-628	Base Supplies & Equipment Shed	8,000 / 743	
442-758	Base Supply & Equipment Warehouse	18,000 / 1,672	Add 7,000 SF / 650 SM for category code 610-122, Base Supply Admin.
610-122	Base Supply Administration	7,000 / 650	
610-129	Weapons Systems Maint Mgt Facility		See corresponding category code.
722-351	Dining Hall		See corresponding category code.
725-517	Troop Camp (Officer)	150 persons	
725-517	Troop Camp (Enlisted)	850 persons	
730-142	Fire Station		See corresponding category code.
730-835	Security Forces Operations		See corresponding category code.
730-837	Security Entry Control Building		See corresponding category code.
730-839	Traffic Check House	200 / 19	
740-674	Physical Fitness Center	2,000 / 186	Full-time CRTC personnel and visiting unit(s) = 1,000 SF / 93 SM each.

[Additional CRTC mission requirements such as ATSO, MRTS, etc., may be tasked to some extent by NGB. These authorizations will be calculated separately.]

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Table 2. ANG RED HORSE Unit Facility Requirements Programming Guide *

Category Code	Nomenclature	Total Req. (SF / SM)	Planning Factors
123-335	Vehicle Fueling Station	1 each	Dispenses mogas and diesel.
131-111	Telecommunications Facility	500 / 46	
171-443	Reserve Forces General Training	3,000 / 279	
171-445	Reserve Forces Operations and Training	11,000 / 1,022	
171-450	Reserve Forces Medical Training	1,500 / 139	
171-476	Combat Arms Training and Maint (CATM)	1,200 / 111	
214-422	Vehicle Wash Rack	1 each	
214-425	Vehicle Maintenance Shop	12,500 / 1,161	See corresponding category code.
214-428	Vehicle Operations Parking Shed	11,000 / 1,022	See corresponding category code.
214-467	Refueling Vehicle Shop	750 / 70	
219-943	BCE Pavement and Grounds Facility	9,000 / 372	
219-944	BCE Maintenance Shop	14,000 / 1,161	
219-947	BCE Storage Shed	4,000 / 372	
442-257	Base Hazardous Materials Storage	1000 / 93	Increased from 600 SF / 56 SM on 18 Jun 1998.
442-628	Base Supplies and Equipment Shed	8,400 / 780	
442-758	Base Supplies and Equipment Warehouse	12,800 / 1,189	
610-122	Base Supply Administration	800 / 74	
610-913	Disaster Preparedness	3,000 / 279	
722-351	Dining Hall	4,600 / 427	See corresponding category code.
730-839	Traffic Check House	100 / 9	
740-674	Physical Fitness Center	600 / 56	
890-197	Weight Scale	1 each	

* Only for 202-member units (1/2 RED HORSE squadron) with equipment and vehicle packages.

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Table 3. ANG Civil Engineering Regional Training Site (RTS)

Category Code	Nomenclature	Total Req. (SF / SM)	Planning Factors
171-443	General Purpose Training (Classroom)	4,000 / 372	100 persons; includes 1,600 SF / 149 SM for DCC/SRC.
179-371	Airfield Pavements / Rapid Runway Repair Site*	1 each	
179-371	Pad for Prime RIBS MKT or CDK with utilities*	900 / 84	
179-511	Firefighter Training Facility	1 each	
214-422	Vehicle Service Rack / Wash Rack	1 each	
442-628	Base Supplies and Equipment Shed(s)	19,600 / 1,821	Includes space for Vehicle Operations Parking Shed (214-428).
723-392	Sanitary Latrine / Laundry / Pot Sink	1,500 / 139	Combined community facility.
725-517	Troop Camp	1 each	140 persons.

* training aid

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Table 4. ANG Civil Engineering Regional Equipment Operators Training Site (REOTS)

Category Code	Nomenclature	Total Req. (SF / SM)	Planning Factors
171-445	Reserve Forces Operations and Training	5,700 / 530	
	Commandant	200 / 19	
	Administration	120 / 11	
	Communication/Reproduction	120 / 11	
	Cadre Office Space	1,125 / 105	
	Classrooms (4)	1,600 / 149	
	Conference Room	200 / 19	
	Computer Lab	800 / 74	
	Community Room	150 / 14	
	Restrooms/Lockers/Mudroom	600 / 56	
	Mechanical Room	200 / 19	
	Circulation	585 / 54	
214-425	Vehicle Maintenance Shop	3,041 / 283	
214-428	Vehicle Operations Parking Shed	2,500 / 232	
442-758	Base Supplies and Equipment Warehouse	5,000 / 465	

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