



DEPARTMENT OF THE AIR FORCE

WASHINGTON, DC 20330-1000

APR 26 2004

OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR RECORD

SUBJECT: Minutes of Air Force Base Closure Executive Group (AF/BCEG) Meeting, 16 Apr 04

Maj Gen Heckman and Mr Aimone called the meeting to order upon obtaining a quorum at 0825, the Pentagon, Room 5C279. Attendance is at Atch 1. The meeting was categorized as deliberative. Maj Gen Heckman reviewed the 8 Step Program for Weights and Questions, previewed future BCEG schedules, and discussed open action items from the last meeting (Slides 4-9). [REDACTED] presented for information the Navy approach to Criterion 4 (Slides 12-13), while Mr Frank Sosa presented the Army and Air Force approaches (Slides 14-15).

[REDACTED], presented a re-attack on CAF questions for deliberation (Slides 18-31). The BCEG voted unanimously to admit for candidacy all the CAF questions except for Slide 31. [REDACTED], presented for deliberation revised MAF questions. The BCEG voted unanimously to admit for candidacy questions at Slides 33 and 34. After discussion, the BCEG voted to delete questions at Slides 35-36. [REDACTED] presented new ARC demographic questions for deliberation. The BCEG voted unanimously to admit for candidacy questions at Slides 37 and 39-41, and delete the question at Slide 38. [REDACTED] presented for deliberation the new Criterion 7 demographics question at Slide 42, which the BCEG unanimously voted for candidacy. The deliberative session was suspended at this point.

[REDACTED] briefed for information an introduction to filters, weighting, and metrics (Slides 45-58). [REDACTED] presented a complementary information briefing "Decision Analysis - Sensitivity to Weights" (separate briefing Slides 1-9).

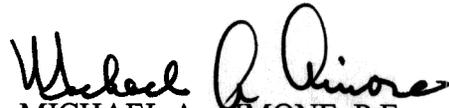
The Honorable Nelson Gibbs joined the BCEG and was updated on status of the process; he sat in on the AFSAA briefing.

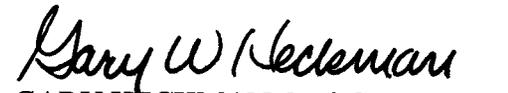
In a deliberative session, Mr Aimone presented remarks concerning the Data Call 1 physical constraints, capacity templates, and measures to the 2025 Force Structure Plan to stimulate BCEG discussion. Maj Gen Heckman presented remarks to encourage deliberation about weighting attributes for Criteria 1-4. The schedule of future meetings through September 2004 was refined. The meeting concluded at 1255 upon loss of the quorum.

[REDACTED]
[REDACTED]
[REDACTED]
BCEG Recorder

DELIBERATIVE DOCUMENT-FOR DISCUSSION PURPOSES ONLY
NOT RELEASABLE UNDER FOIA

The minutes above are approved.


MICHAEL A. AIMONE, P.E.
SAF/IEB
Co-Chairman


GARY HECKMAN, Maj Gen, USAF
AF/XP
Co-Chairman

Attachments:
As Stated

Base Closure Executive Group Attendance

Date: 16 Apr 2004

Chairs

- Mr. Mike Aimone
- Maj Gen Gary Heckman

**Voting members are underlined

Primary Members

- Brig Gen Dave Brubaker
- Brig Gen Rajczak
- Brig Gen Michael Lynch
- Mr. Fred Kuhn
- Ms. Cathy Sparks
- Mr. Tim Beyland
- Ms. Gina Guy
- Mr. Jay Jordan
- Mr. William Kelly
- Ms. Maureen Koetz

Alternate Members

- Brig Gen Tony Haynes
- _____
- Mr. Fred Pease
- _____
- Ms. Kathy Ferguson
- _____
- _____
- _____
- Brig Gen William Ard
- _____

Representatives

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Others (IEB)

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Briefers

- _____ SAJ
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

AFMA

Headquarters U.S. Air Force

Integrity - Service - Excellence

BCEG



16 Apr 04

U.S. AIR FORCE



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation - Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



Weights and Questions A Modified 8 Step Program

- ✓ ■ Step 1: Review / approve questions
- ✓ ■ Step 2: Map approved questions to criteria
- ✓ ■ Step 3: Create attribute bins within the criteria
- ✓ ■ Step 4: Weight the criteria
 - Step 5: Review / approve filters (questions and weight)
 - Step 6: Approve metrics
 - Step 7: Sensitivity analysis
 - Step 8: Lock weights

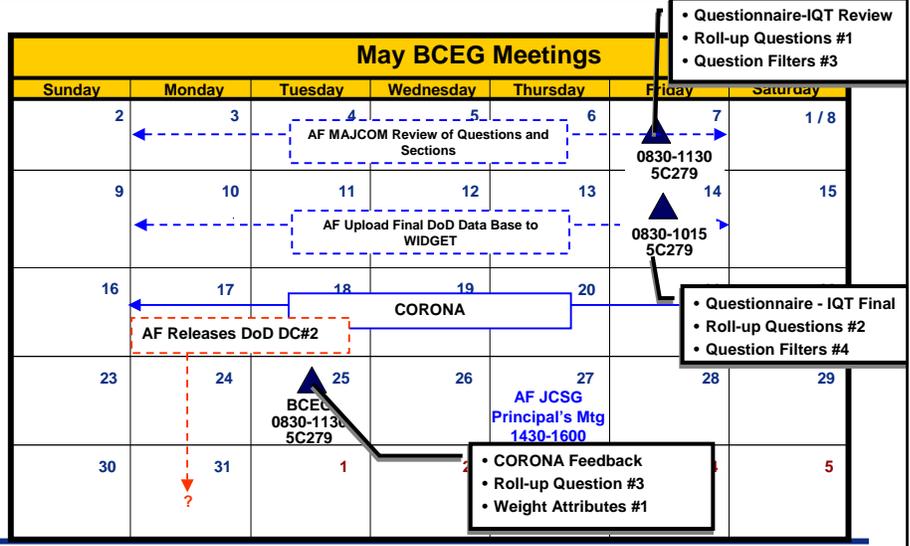


April BCEG Schedule

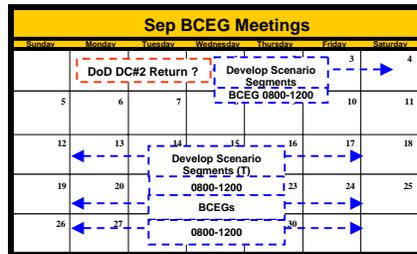
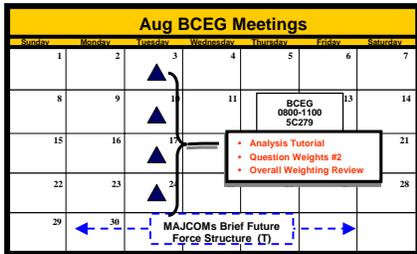
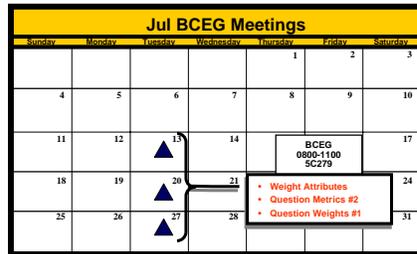
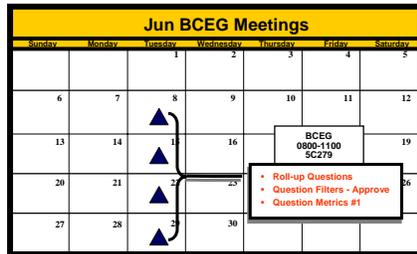
April BCEG Meetings						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	<ul style="list-style-type: none"> • Data Call #1 – Results • Attribute Update • Criteria 8 MV Questions • ARC Team Questions 		8	9	10
11	12	<ul style="list-style-type: none"> • Final Questions Scrub • Attribute Development • Question Binning Review • Weight Criteria #1 		15	16	17
18	19	<ul style="list-style-type: none"> • Criteria 4 • Question Reattacks • Question Filters #1 • AFSAA Briefing • Weight Criteria #2 		22	23	24
25	26	<ul style="list-style-type: none"> • Criteria 4 Questions • Analysis Model Demo • Question Filters #2 		29	30	31
	AFSOC (1300-1630) AETC	PACAF (0900-1500) AMC	AFRC (0900-1500) AFSPC	ACC (1000-1200)	ANG (0900-1500)	



May BCEG Schedule



Jun - Sep BCEG Schedule





Admin Action Items

Complete?		Target Date
Y		
<input checked="" type="checkbox"/>	■ SAF/IEI and ILE tasked to review housing (Criterion 7) and determine if AF methodology to calculate housing availability could be adopted	Complete
<input type="checkbox"/>	■ All Teams tasked to rework questions (IQT Ready)	26 Apr 04
<input checked="" type="checkbox"/>	■ BCEG secretariat tasked to schedule JAST briefing	Complete
<input checked="" type="checkbox"/>	■ BCEG secretariat tasked to provide proposed BCEG schedule through July	Complete
<input checked="" type="checkbox"/>	■ ISR team tasked to coord Spectrum question with ILC	Complete
<input checked="" type="checkbox"/>	■ CAF rep tasked to identify authoritative source for 7,500' for aux field question (C 120)	Complete



Admin Action Items

Complete?		Target Date
Y		
<input checked="" type="checkbox"/>	■ XOO-RA tasked to verify Falcon View as a certifiable source	Complete
<input checked="" type="checkbox"/>	■ XOO-RA tasked to provide update input to questions C 108, C 150 (Supersonic airspace)	Complete
<input checked="" type="checkbox"/>	■ BRAC staff tasked to list OPR / OCR for slides	Complete
<input type="checkbox"/>	■ Mr. Aimone took on task to address HLD with DAS's & OSD	30 Apr 04
<input type="checkbox"/>	■ XOH tasked to review questions to define HLS filter	12 Apr 04
<input checked="" type="checkbox"/>	■ AF/DPX provide additional demographics questions	Complete



Agenda

16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation - Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman

Headquarters U.S. Air Force

Integrity - Service - Excellence

Criterion 4



U.S. AIR FORCE

16 Apr 04



Criterion 4 Navy’s Approach

- Developed a series of MV questions to gather data that relate to attributes
- IEG determines which questions relate to which Selection Criteria (1- 4)
- Examples of questions (‘scoring statements’) determined to be relevant to “the cost of operations and the manpower implications” for Surface/Subsurface Function:
 - “Relative value of pier modernization”
 - “Relative impact of local weather on operations”
 - “Relative value of government and PPV housing availability”



Notional Example of Navy Scoring Matrix

MV Matrix Question(s)	Supporting Question(s)	IAT Band	Matrix Scoring Statement	IEG Score					Weight
				SC	R	F	SC	C	
ATTRIBUTE - Attribute Weight				PS	PS	PS	PS		
Component				3.5	1	1.5	3.8		
PERSONNEL SUPPOR				9.75					
Medical									
52	PS-1	2	Located within the medical catchment area of an in-patient military medical treatment facility.	4	1	1	1	1	1.083
Housing									5.11
53	PS-2a-d	1	Relative value of government and PPV housing availability.	10	1	1	1	1	2.706
54	PS-3a-b	1	Relative value of community housing availability, affordability and proximity.	10	1	1	1	1	2.403
Non-Military Education									0.717
55	PS-4a-c	2	Relative value of dependent primary and secondary education quality in the local community.	7					0.386
56	PS-5a-d	2	Relative availability of dependent and member post-secondary education in the local community.	6				1	0.331
Employment									0.165
57	PS-6a-b	3	Relative opportunity for dependent/off-duty employment.	3				1	0.165
Fleet and Family Services									1.111
58	PS-7	2	Relative availability of base services.	7		1		1	0.598
59	PS-8a-b	2	Relative availability of child-care support.	6		1		1	0.513
MWR									0.513
60	PS-9	2	Relative availability of MWR facilities.	6		1		1	0.513
Follow-on-Tour Opportunities									0.055
61	PS-10	3	Relative opportunity for follow-on tour in the homeport.	1				1	0.055
Metropolitan Area Characteristic									0.997
62	PS-11	3	Relative proximity to a population center/city that has a population greater than 100,000.	2				1	0.11
63	PS-12	3	Relative proximity to a nearest commercial airport that offers regularly scheduled service by a major airline carrier.	3	1		1	1	0.721
64	PS-13	3	Relative local crime rate.	3				1	0.165
Question Total									9.75



Criterion 4 Army's Approach

- **Workforce Availability** -- looks at the population density and the average education level in a 2-dimensional metric
- **Area Cost Factor** -- standard factor for MILCON, provides the geographical cost perspective
- **Joint facilities** -- includes the percentage of costs provided by other services and/or DOD compared to total budget, we combine this with the installations overall size in a 2-dimensional metric.
- **C2 TGT for facilities** -- the Army has chosen several "focus" facilities (the important ones) , this looks at the installations contribution to the Army's total bill to get these facilities up to a certain standard
- **Variable cost factor** -- BASOPS from COBRA, relative efficiency of the installation
- **Joint Workload** -- labor hours for inter-service workload



Criterion 4 Air Force's Approach

- **BAH**
 - Measures the military cost difference between locations
- **Area Cost Factor**
 - Measures the relative difference in costs of building and sustaining facilities at different locations
- **Locality Pay**
 - Measures civilian manpower cost differences between locations
- **Utility costs under investigation for possible use**



Criterion 4

QUESTIONS?



Agenda

16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	Maj Milam
1030-1100	AFSAA Presentation – Weighting	Ms. Wallshein
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



Question Reattacks

Bottom Line:

- 17 Questions need reattacks
 - Task: “Fix for 16 Apr BCEG”
- Numerous others need fixes (IQT details)
 - Task: “Have In IQT format by 26 Apr”



Ramp

Tracking #: USAF #11 (C 139)

IQT Ready

SHORT NAME: Ramp - Space

QUESTION: What is the total amount of aircraft ramp space on the installation (in square yards)?

SOURCE: (HAF) DoD # 8 not conclusive

OPR: AF/XO

OCR: AF/ILE

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



C4

Tracking #: USAF #16 (L 201)

IQT Ready

SHORT NAME: C4 – Data Networks

QUESTION: What is the available growth capacity of the installation's data networks as they currently exist today?

- 1) What is the total base bandwidth capacity of the installation's data network as currently installed?
- 2) What is the average daily bandwidth usage of the installation's data network?

SOURCE: (NEW) Communications Information Planning System (CIPS) maintained at 38th EIG

OPR: AF/ILC

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input checked="" type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



C4

Tracking #: USAF #81 (2.2A)

IQT Ready

Short Question Name: C4 - Frequency Spectrum Limitations

Question: Does the installation have operational limitations with use of or access to any of the following frequency bands:

Table: L, S, C, X, KU, and KA vs. ISR Platforms (see IQT)

SOURCE: (NEW) HAF (AF Frequency Mgt Agency) Spectrum 21 Database

OPR: AF/XI

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input checked="" type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Fuel

Tracking #: USAF #31 (L 128) **REPLACES BT 1 -3** IQT Ready

SHORT NAME: POL - Maximum Dispensing Rate

QUESTION: What is the current maximum and sustained jet fuel dispensing rate capability?

SOURCE: **(NEW)** Base Support Plan as required by AFI 10-404, Attachment 20

OPR: AF/ILG

OCR: AF/XO

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Munitions

Tracking #: USAF #33 (C 20) IQT Ready

SHORT NAME: Munitions - Explosive Capacity w/o Waivers

QUESTION: What is the Maximum explosive capacity for the munitions storage areas, in pounds, without waivers, by hazard classification?

SOURCE: **(NEW)** AFMAN 91-201, Explosives Safety Standards; Installation Explosives Site Plan

OPR: AF/LMW

OCR: AF/SE and AF/XO

<input checked="" type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Munitions

Tracking #: USAF #34 (C 20A)

IQT Ready

SHORT NAME: Munitions - Explosive Capacity w/ Waivers

QUESTION: What is the Maximum explosive capacity for the munitions storage areas, in pounds, with waivers, by hazard classification?

SOURCE: **(NEW)** AFMAN 91-201, Explosives Safety Standards; Installation Explosives Site Plan

OPR: AF/ILMW

OCR: AF/SE and AF/XO

<input checked="" type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Air Operations

Tracking #: USAF #36 (C 137)

IQT Ready

SHORT NAME: Air Operations - Departure Delays

QUESTION: Using total departure figures for FY03, how many wing sorties were scheduled? Of those scheduled, how many experienced ATC departure delays greater than 15 minutes?

SOURCE: **(NEW)** Operations Support Squadron

OPR: AF/XOO-RA

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input checked="" type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW**

IQT Ready

SHORT NAME: Ranges – Adjacent Land/Airspace

QUESTION: **Does your Range/OPAREA have adjacent Federal Lands/Airspace?**

SOURCE: **(NEW)** EDT 202

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW**

IQT Ready

SHORT NAME: Ranges – Training Facilities

QUESTION: **Does your Range/OPAREA have a range or training facility owned or operated by another Service?**

SOURCE: **(NEW)** EDT 205

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW**

IQT Ready

SHORT NAME: Ranges – Weapons

QUESTION: **Weapons approved for use/release on range or OPAREA?**

SOURCE: **(NEW)** EDT 215

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW**

IQT Ready

SHORT NAME: Ranges – Littoral Environment

QUESTION: **Does your activity have ground areas that schedule/control littoral environments?**

SOURCE: **(NEW)** EDT 203

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW - DELETE – BCEG 25**

IQT Ready

SHORT NAME: Ranges – Training/Testing

QUESTION: **Percent of scheduled event/sorties supporting training and testing?**

SOURCE: **(NEW)** EDT 209

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace (CAF)

Tracking #: **NEW**

IQT Ready

SHORT NAME: Ranges – Joint Training

QUESTION: **Range/OPAREA demonstrated ability to perform Joint Tactical Tasks?**

SOURCE: **(NEW)** EDT 207

OPR: AF/XOO-RA

OCR:

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Airspace

Tracking #: USAF #37 (C 201)

IQT Ready

SHORT NAME: Airspace – Distance

QUESTION: Identify and state distance to all Special Use Airspace / Airspace for Special Use and USAF Certified Drop Zones / Landing Zones within 300NM of the installation’s main runway.

SOURCE: (HAF) FLIP; DoD #155, #160; Falcon View or other certified flight planning software

OPR: AF/XOO-RA

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input checked="" type="checkbox"/> ISR	<input type="checkbox"/> HLD



Drop Zones (MAF)

Tracking #: USAF #52 (M 104)

IQT Ready

SHORT NAME: Drop Zones - IMC

QUESTION: Identify and state the distance to USAF-certified IMC drop zones.

SOURCE: (HAF) DoD #19; DoD #177

OPR: AF/XOO-RA

<input type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Air Operations

Tracking #: USAF #59 (I.2.C.14)

IQT Ready

SHORT NAME: Air Operations - Proximity to Mission

QUESTION: What is the distance (NM) to the nearest Army/Navy/Marine installation **within 300 NM that has an active component combat organization (brigade or higher)?**

SOURCE: **(NEW) UNDER DEVELOPMENT** TACC?

OPR: AF/XO

<input type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Air Operations

Tracking #: USAF #57 (III.1.A.1) **AF/XO: DELETE**

IQT Ready

SHORT NAME: Air Operations –Passenger and Cargo Handling

QUESTION: If your installation has a specifically designated passenger and/or air cargo processing facility, complete the following table:

Passenger Terminal? Square footage?

Air Cargo Terminal? Square footage?

Mechanized Materials Handling System (MMHS) capacity

SOURCE: **(NEW) UNDER DEVELOPMENT; DoD 11;** Real Property Record?

OPR: AF/XO OCR: AF/ILG and AF/ILE

<input type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Hangar (MAF)

Tracking #: USAF #62 (M 100) IL: DELETE

IQT Ready

SHORT NAME: Hangar – Aircraft Maintenance

QUESTION: How many aircraft, by assigned Mission Designed Series (MDS), can the installation house in serviceable, maintenance hangars (include tenant units in count)?

SOURCE: (NEW) DoD #19; ACES-RP, Record Drawings

OPR: AF/XORM

OCR: AF/ILE

<input checked="" type="checkbox"/> CAF	<input checked="" type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: USAF #72 (H 14)

IQT Ready

SHORT NAME: Demographics - Active Duty Accessions

QUESTION: Within 100 statute miles of this installation, what were the total active duty Air Force accessions for fiscal year 1999 through 2003.

SOURCE: (HAF) AF/DP; AFRS Historical Data

OPR: AFRS/RSOA

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input checked="" type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: USAF #105 DELETE – BCEG 25
(Companion to USAF #72)

IQT Ready

SHORT NAME: Demographics - Active Duty Recruiter Strengths

QUESTION: Within 100 statute miles of this installation, what were the total active duty Air Force recruiters authorized for fiscal year 1999 through 2003.

SOURCE: (HAF) AF/DP; AFRS Historical Data

OPR: AFRS/RSOA

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input checked="" type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: USAF #73 (H 14A)

IQT Ready

SHORT NAME: Demographics - ARC Recruiting

QUESTION: If there is an ARC unit on this installation, what were the total ANG and/or AFRC accessions and ARC recruiter authorizations for fiscal years 1999 to 2003?

SOURCE: (HAF) AFRC/RSSO and ANG/DPR (Tasker to TAGs)

OPR: AFRC/RSSO and ANG/DPR

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input checked="" type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: USAF #76 (H 9)

IQT Ready

SHORT NAME: Demographics – Manning Data

QUESTION: If there are ARC units on this installation: What was the unit strength, total percentage manned, for fiscal years 1999 – 2003.

SOURCE: (HAF) AFRC/DP and ANG/DP; Military Personnel Data System

OPR: AFRC/DPMF and ANG/DPR

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input checked="" type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: USAF #108 (Companion to USAF #76)

IQT Ready

SHORT NAME: Demographics – Manning Data

QUESTION: If there is an ARC unit on this installation, for fiscal years 1999 – 2003, has the ARC unit experienced a mission change or any single change in authorized military positions of 50 or more?

SOURCE: ANG/DP, AFRC/DP

OPR: AFRC/DPMF and ANG/DPR

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input checked="" type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Demographics

Tracking #: **(NEW QUESTION)**

IQT Ready

SHORT NAME: **Demographics – Population Density**

QUESTION: **What was the population density (population per square mile) for the county in which your installation is located for 1990? For 2000?**

SOURCE: **1990 and 2000 Census Data**

OPR: (HAF: AFRC/DP to answer)

<input type="checkbox"/> CAF	<input type="checkbox"/> MAF	<input type="checkbox"/> ARC
<input type="checkbox"/> Space	<input type="checkbox"/> ISR	<input type="checkbox"/> HLD



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	Maj Milam
1030-1100	AFSAA Presentation – Weighting	Ms. Wallshein
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	Maj Milam
1030-1100	AFSAA Presentation – Weighting	Ms. Wallshein
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman

Headquarters U.S. Air Force

Integrity - Service - Excellence

Introduction to Weighting

Criteria and Attributes



Maj Curt Milam
SAF/IEBB

U.S. AIR FORCE

Briefing is UNCLASSIFIED



Purpose

- (Briefly) review the analytical framework
- Introduce a process for filters and weights
 - A rational, whole picture method for the BCEG to consider filters and weights
- Practical examples

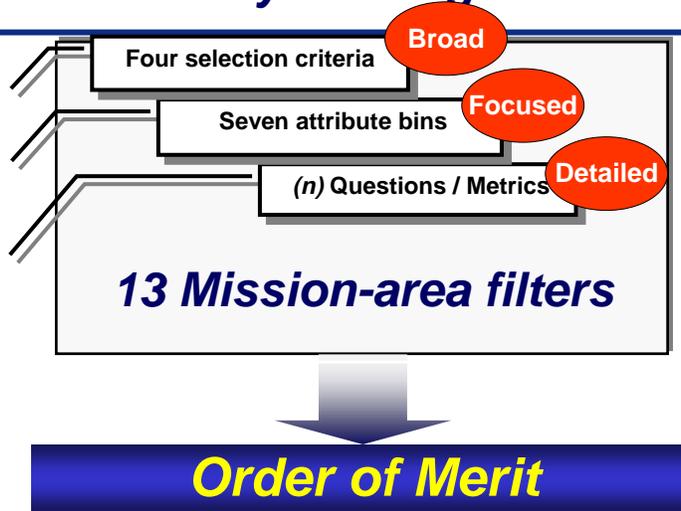


Weights and Questions **A Modified 8 Step Program**

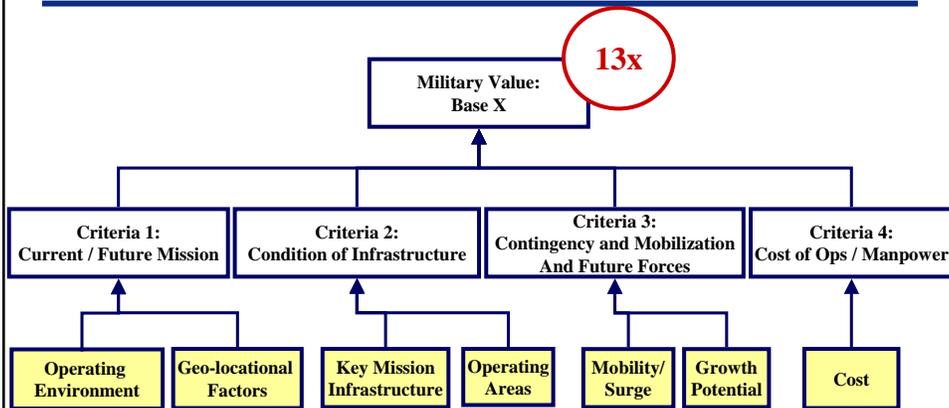
- ✓ ■ Step 1: Review / approve questions
- ✓ ■ Step 2: Map approved questions to criteria
- ✓ ■ Step 3: Create attribute bins within the criteria
- ✓ ■ Step 4: Weight the criteria
- Step 5: Review / approve filters (questions and weight)
- Step 6: Approve metrics
- Step 7: Sensitivity analysis
- Step 8: Lock weights



Analytical Organization



Analytical Hierarchy Attributes





Mission-area Filters

<u>Mission-area Filters</u>	
SOF / Helo / Attack	Fighter
UAV/UCAV	Bomber
ABL	Tanker / C2ISR
Airlift (inter)	Airlift (intra)
Space Launch	Space Ops
ICBMs	
Homeland Defense	ARC Unit



Example Filter

SME		SOF/Helo/Attack		Criteria	
Questions	Wt	Att Wt			Wt
1	20				
2	20				
6	20				
7	20				
8	20				
	100				
12	25			1: Current / Future Mission	25%
13	25				
14	25				
15	25				
	100				
22	25			2: Condition of Infrastructure	25%
23	25				
26	25				
29	25				
	100				
30	25				
31	25				
32	25				
37	25				
	100				
38	20			3: Contingency, Mobilization, and Future Forces	25%
39	20				
40	20				
41	20				
42	20				
	100				
43	25				
45	25				
46	25				
50	25				
	100				
51	20			4: Cost of Ops and Manpower Implications	25%
52	20				
53	20				
54	20				
55	20				
	100				



Mission-area Filters Setting Initial Attribute Weights

Mission-area Filters	
1	
2	
3	
4	ICBMs
5	Homeland Defense
6	ARC Unit



Attributes Setting Initial Attribute Weights

	Launch and Control				Space				ARC			
	C2	C3	C4	C1	C2	C3	C4	C1	C2	C3	C4	
Tanker, Airlift, C2ISR, ABL	MAF				Space				ARC			
Operating Environment	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	
Geo-locational Factors	50%	0%	0%	0%	50%	0%	0%	0%	0%	100%	0%	
Key Mission Infrastructure	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	
Operating Areas	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	
Mobility / Surge	0%	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	
Growth Potential	0%	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	
Cost	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	
Fighter, Bomber, SOF, UAV	CAF				Missile				HLD			
Operating Environment	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	
Geo-locational Factors	50%	0%	0%	0%	50%	0%	0%	0%	0%	100%	0%	
Key Mission Infrastructure	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	
Operating Areas	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	
Mobility / Surge	0%	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	
Growth Potential	0%	0%	50%	0%	0%	0%	50%	0%	0%	0%	0%	
Cost	0%	0%	0%	100%	0%	35%	0%	100%	0%	0%	0%	
	100%	100%	100%	100%	100%	135%	100%	100%	0%	0%	100%	



Metrics

- We've talked about building filters in terms of:
 - Question selection
 - Weights (for attributes and questions)
- The final item that filters can "set" are metrics
- Metrics: Value ranges applied to answers which place the responses into operationally relevant, mission-centric groups.
- Don't waste time on a metric if a filters doesn't select that question
- So ... metrics should be presented by question, for the filters that want it



Reviewing Metrics

Question number: 1

Question: How long is your runway?

Filters selecting this question: SOF, Ftr, UAV, Bomber, ABL, Tkr, A/L (both)

SOF/Helo/Attack			Ftr			UAV/UCAV			Bomber		
X	Y		X	Y		X	Y		X	Y	
1.00	11,000		1.00	12,000		1.00	10,000		1.00	12,000	
0.75	10,000	10,999	0.75	11,000	11,999	0.75	9,000	9,999	0.75	11,000	11,999
0.50	9,000	9,999	0.50	10,000	10,999	0.50	8,000	8,999	0.50	10,000	10,999
0.25	8,000	8,999	0.25	9,000	9,999	0.25	7,000	7,999	0.25	9,000	9,999
0.00	7,000	7,999	0.00	8,000	8,999	0.00	6,000	6,999	0.00	8,000	8,999
ABL			Tkr / CSR			A/L (Intra)			A/L (Inter)		
X	Y		X	Y		X	Y		X	Y	
1.00	12,000		1.00	12,000		1.00	12,000		1.00	10,000	
0.75	11,000	11,999	0.75	11,000	11,999	0.75	11,000	11,999	0.75	9,000	9,999
0.50	10,000	10,999	0.50	10,000	10,999	0.50	10,000	10,999	0.50	8,000	8,999
0.25	9,000	9,999	0.25	9,000	9,999	0.25	9,000	9,999	0.25	7,000	7,999
0.00	8,000	8,999	0.00	8,000	8,999	0.00	8,000	8,999	0.00	6,000	6,999



Reviewing Metrics

Question number: 2
Question: Distance to nearest pop. center of 100k
Filters selecting this question: All

SOF/Helo/Attack			Ftr			UAV/UCAV			Bomber		
X	Y		X	Y		X	Y		X	Y	
1.00	40		1.00	50		1.00	100		1.00	50	
0.75	41	45	0.75	51	55	0.75	75	99	0.75	51	55
0.50	46	50	0.50	56	60	0.50	50	74	0.50	56	60
0.25	51	55	0.25	61	65	0.25	25	49	0.25	61	65
0.00	56		0.00	66		0.00	0	24	0.00	66	

ABL			Tanker / C2ISR			A/L (Intra)			A/L (Inter)		
X	Y		X	Y		X	Y		X	Y	
1.00	40		1.00	40		1.00	40		1.00	40	
0.75	41	45	0.75	41	45	0.75	41	45	0.75	41	45
0.50	46	50	0.50	46	50	0.50	46	50	0.50	46	50
0.25	51	55	0.25	51	55	0.25	51	55	0.25	51	55
0.00	56		0.00	56		0.00	56		0.00	56	

ICBM			Space Ops			Space Launch			ARC/HLD		
X	Y		X	Y		X	Y		X	Y	
1.00	100		1.00	40		1.00	60		1.00	40	
0.75	75	99	0.75	41	45	0.75	45	59	0.75	41	45
0.50	50	74	0.50	46	50	0.50	30	44	0.50	46	50
0.25	25	49	0.25	51	55	0.25	15	29	0.25	51	55
0.00	0	24	0.00	56		0.00	0	14	0.00	56	



Example Filter

Questions	Wts	Attribute
1	20	Operating Environment
2	20	Operating Environment
6	20	Operating Environment
7	20	Operating Environment
8	20	Operating Environment
	100	
12	25	Geo-locational Factors
13	25	Geo-locational Factors
14	25	Geo-locational Factors
15	25	Geo-locational Factors
	100	
22	25	Key Mission Infrastructure
23	25	Key Mission Infrastructure
26	25	Key Mission Infrastructure
29	25	Key Mission Infrastructure
	100	
30	25	Operating Areas
31	25	Operating Areas
32	25	Operating Areas
37	25	Operating Areas
	100	
38	20	Mobility / Surge
39	20	Mobility / Surge
40	20	Mobility / Surge
41	20	Mobility / Surge
42	20	Mobility / Surge
	100	
43	25	Growth Potential
45	25	Growth Potential
46	25	Growth Potential
50	25	Growth Potential
	100	
51	20	Cost Factors
52	20	Cost Factors
53	20	Cost Factors
54	20	Cost Factors
55	20	Cost Factors
	100	

NOTIONAL



Weights and Questions A Modified 8 Step Program

- ✓ ■ Step 1: Review / approve questions
- ✓ ■ Step 2: Map approved questions to criteria
- ✓ ■ Step 3: Create attribute bins within the criteria
- ✓ ■ Step 4: Weight the criteria
- ■ Step 5: Review / approve filters (questions and weight)
- ■ Step 6: Approve metrics
- Step 7: Sensitivity analysis
- Step 8: Lock weights



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation - Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



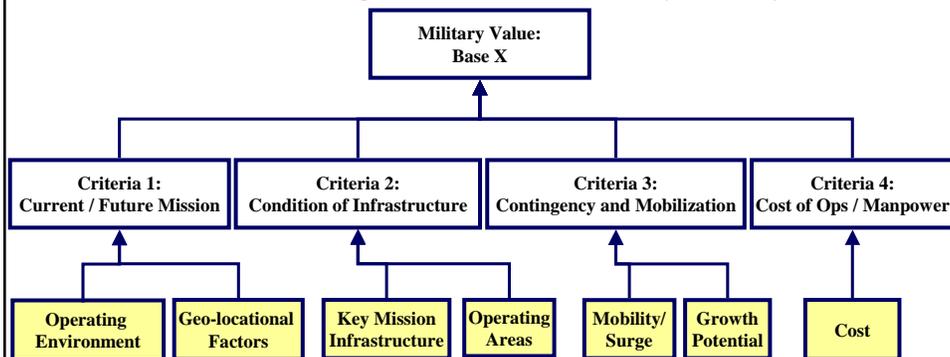
Decision Analysis: What difference do weights make?

- Two complementary types of decision analysis:
 - Normative: How should I make this choice?
 - Based on expected consequences using hypothesized states of the world with various outcomes based on the choice
 - Descriptive: What choice do I make?
 - Based on available alternatives
- Value judgments and probability judgments
 - How much do you value this?
 - Probability of different states and outcomes?
- Weights relate entirely to values



Analytical Hierarchy Attributes – Deliberative

For each area: **Fighters, Bombers, Space Ops, etc.**



WEIGH CRITERIA BASED ON THEIR VALUES

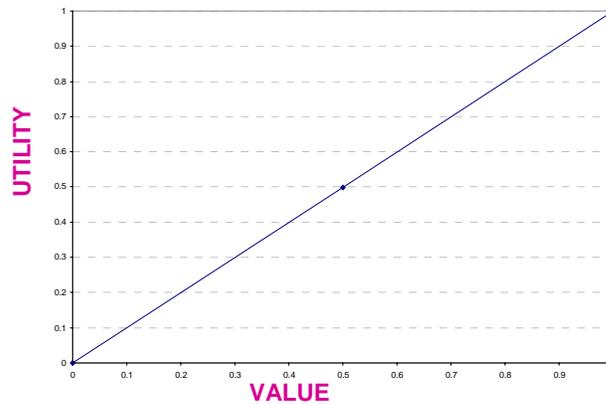


Sample utility function

– used throughout this example

NOTE: There are many other utility functions to choose from

- Range from 0 (least preferred) to 1 (most)
- Mid-preference is 0.5



Note: values from 0 to 1.0 easily translate to values from 0 to 100



Notional Alternatives and Scores

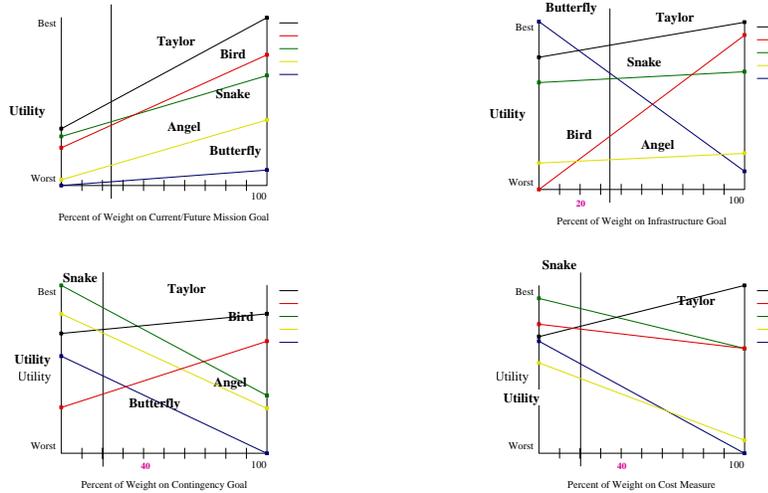
NOTIONAL BASE	CURRENT/FUTURE MISSION		CONDITION OF INFRASTRUCTURE		CONTINGENCY & MOBILIZATION		COST
	OP ENV	GEO factors	KEY MSN INFRA	OP AREA	Mobility / Surge	Growth Potential	
Angel	30	60	40	40	60	50	15
Bird	80	30	50	80	30	10	10
Butterfly	78	68	37	35	37	90	74
Snake	67	100	79	45	38	30	50
Taylor	88	100	90	57	46	30	50

IMAGINARY BASES AND DATA

SCORES CAN RANGE FROM 0 (worst) to 100 (best)



Choices at different levels Example – Fighters



Changes in Fighter Military Value due to weight combinations





Concluding thoughts

- To construct weights, consider relative military values contributed by Criteria 1, 2, 3 and 4
- To test decision analysis structure, construct likely alternative data groups and use different weights
 - Perform sensitivity analysis
- Each area's importance with respect to the others will need to be assigned a weight



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation – Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



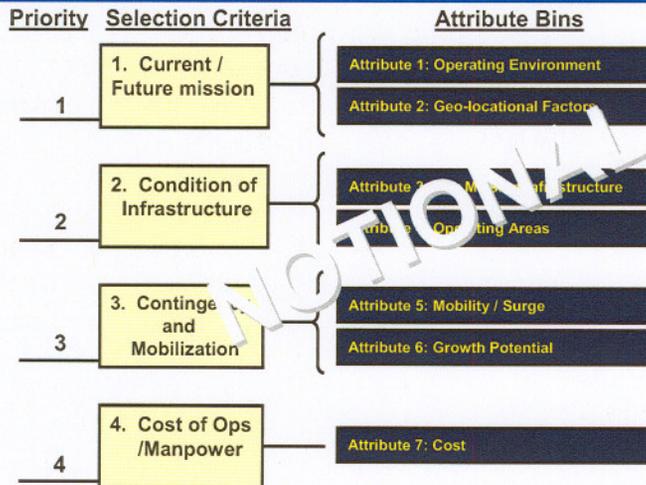
Agenda

16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation - Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	Wrap up / Action Item Review	MG Heckman



Criteria Weighting Discussion





Criteria Weighting Discussion

Selection Criteria

1. Current / Future mission

Attribute Bins

Attribute 1: Operating Environment

Attribute 2: Geo-locational Factors

- Ranges / tng areas (proximity to)
- Space launch azimuth
- Weather
- Demographics and education
- Environmental resources
- EM spectrum (restrictions to)
- Noise abatement
- Range restrictions
- Non-attainment



Criteria Weighting Discussion

Selection Criteria

2. Condition of Infrastructure

Attribute Bins

Attribute 3: Key Mission Infrastructure

Attribute 4: Operating Areas

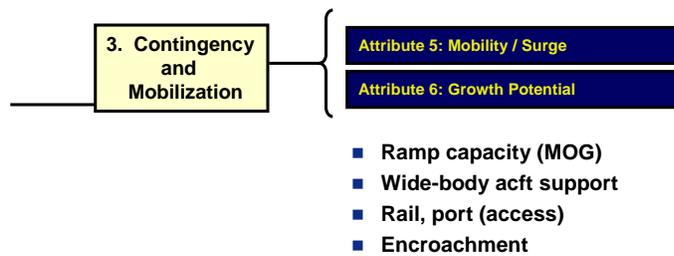
- HAZMAT handling, propellant storage
- Runways, ramp, and launch facilities
- Airspace (local)
- POL (in-ground hydrants, plumbing)
- Communications bandwidth (capacity)
- Instrumentation (ranges, telemetry)
- Munitions storage
- Ranges (quality of)
- DZs, LZs, impact areas
- Buildable Acres



Criteria Weighting Discussion

Selection Criteria

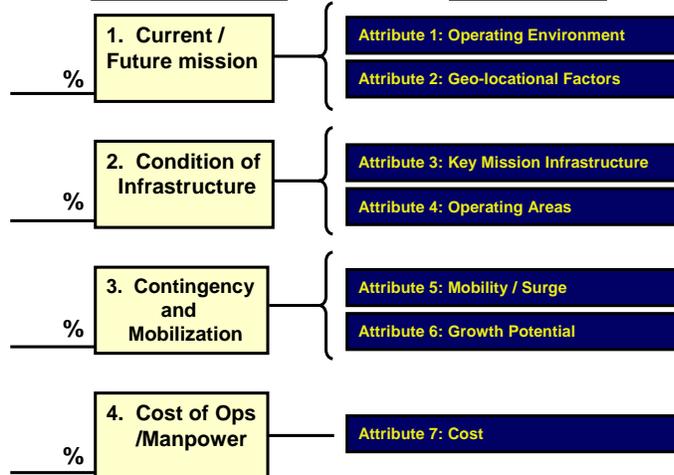
Attribute Bins



Criteria Weighting Discussion

Selection Criteria

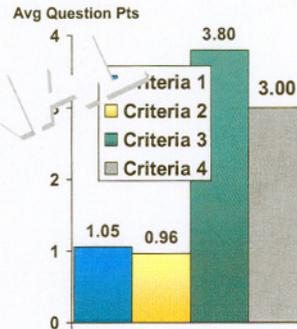
Attribute Bins





Question to Criteria Point Value

- Criteria 1: 43 questions
- Criteria 2: 27 questions
- Criteria 3: 5 questions
- Criteria 4: 3 contractors



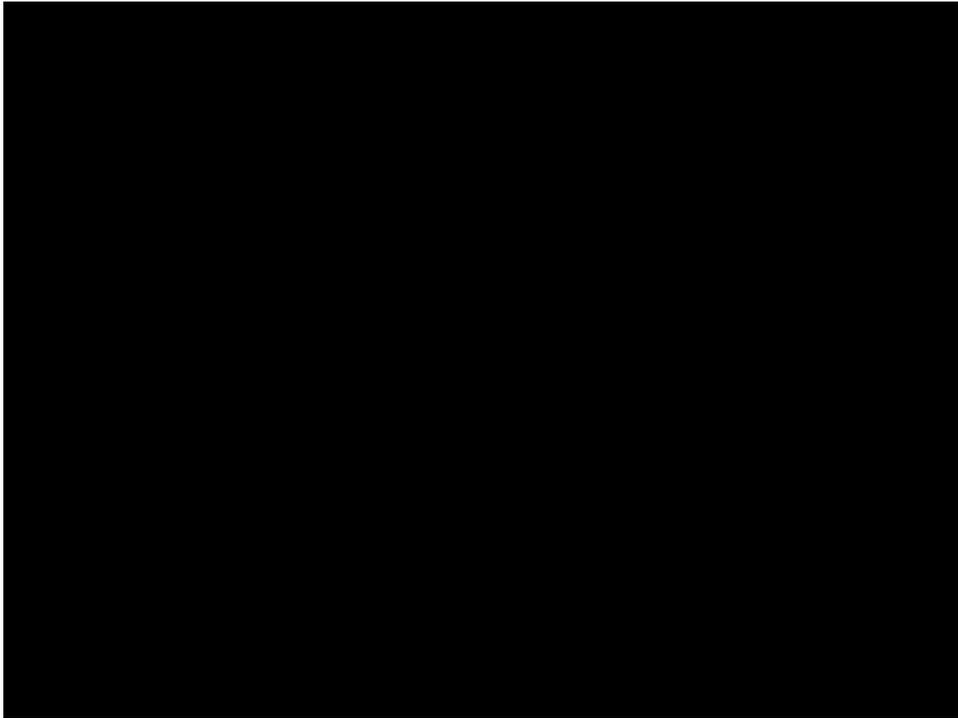
Average Question Value: **1.28**

**Average point value by Criteria based on previous
BCEG Exercise**



Agenda 16 Apr 04

0730-0745	Intro	MG Heckman
0745-0815	Criteria 4 Update (AF, Army, Navy)	Service Reps
0815-0900	Question Reattacks	Functional Reps
0900-0930	-- Break --	
	Question Binning / Mapping Review	
0930-1030	Intro to Filters and Weighting	
1030-1100	AFSAA Presentation - Weighting	
1100-1130	-- Break --	
1130-1200	Criteria Weighting Exercise - Part 2	MG Heckman
1200-1230	<u>Wrap up / Action Item Review</u>	MG Heckman



Criterion 4

“The cost of **operations** and **the** manpower implications”

- Evaluation measures
 - BAH
 - Area Cost Factor
 - Milcon
 - Sustainment
 - Locality Pay
- Utility Cost Factors



Criterion 4

General Comments

- Evaluation measures are representative of cost of ops:
 - Clearly identifiable as location dependent
 - Provide robust discriminators
 - Direct measure of cost of manpower
- Derived from authoritative accepted sources
- Observable, measurable, certifiable, & normalized
- No data call questions required



Criterion 4

BAH

- Rationale:
 - Measures the military cost difference between locations
- Authoritative source:
 - Per Diem, Travel & Transportation Allowance Committee



Criterion 4

Area Cost Factor

- **Rationale:**
 - **Measures the relative difference in costs of building and sustaining facilities at different locations**
- **Authoritative source:**
 - **DoD Facilities Pricing Guide**



Criterion 4

Locality Pay

- **Rationale:**
 - **Measures civilian manpower cost differences between locations**
- **Authoritative source:**
 - **OPM**



Criterion 4

Utility Cost Factors

- Working with AFCESA & ILE to assess feasibility of using utility cost factors
 - Utility costs are not normalized
 - Utility costs are Mission dependent
 - Heating & Cooling degree days
- Defense Utility Energy Reporting System (DUERS)
 - Tracks energy consumption (BTU) per sq ft
 - Contains gas, electrical, and coal costs per Base
 - Total number of buildings and associated total sq ft
 - Base Housing is reported separately

Headquarters U.S. Air Force

Integrity - Service - Excellence



Criterion 7

12 Apr 04

U.S. AIR FORCE



Criterion 7

The ability of both the existing and potential receiving communities' infrastructure to support forces, mission, and personnel



Attributes

- CHILD CARE
- COST OF LIVING
- EDUCATION
- EMPLOYMENT
- HOUSING
- MEDICAL/HEALTH
- POPULATION CENTER
- SAFETY/CRIME
- TRANSPORTATION
- UTILITIES



Cost of Living

What is the local 2003 installation locality pay rate for the GS pay schedule? (JPAT 7 Answer)

- Short Question Name: GS Pay
- Question Type: Single
- Source/Reference: www.opm.gov
- Amplification: None

What is the local 2003 installation BAH rate for an O-3 with dependents? (JPAT 7 Answer)

- Short Question Name: BAH
- Question Type: Single
- Source/Reference: www.dtic.mil/perdiem/bah.html
- Amplification: None



Education

What is the total average composite SAT I score in each of the local school district(s) for the 2002-2003 school year? (Field Answer)

- Short Question Name: SAT Scores
- Question Type: Variable Size Grid
- Source/Reference: Installation Education Office
- Amplification: Average should be as reported by the College Board. Local School Districts are those school districts located in the installation's "Local Community. The Local Community is defined as those counties contained in the installation's Military Housing Area (MHA). MHA counties can be obtained from the Installation Housing Office. If no MHA, use Cost County Group (CCG). **Cost County Group - Jack?**

What is the average composite ACT score in each of the local school district(s) for the 2002-2003 school year? (Field Answer)

- Short Question Name: ACT Score
- Question Type: Variable Size Grid
- Source/Reference: Installation Education Office
- Amplification: Average should be as reported by the College Board. Local School Districts are those school districts located in the installation's "Local Community. The Local Community is defined as those counties contained in the installation's Military Housing Area (MHA). MHA counties can be obtained from the Installation Housing Office. If no MHA, use Cost County Group (CCG). **Cost County Group - Jack?**



Population Center

What is the name and distance in miles to the nearest city with a population of at least 100,000 based on 2000 census data? (JPAT 7 Answer)

- Capacity Question: No
- Short Question Name: Distance to 100K
- Question Type: Variable Size Grid
- Source/Reference: U.S. Census Bureau www.census.gov/statab/ccdb/cit1020a.txt
- Amplification: None

BCEG Approve?

Yes No



BACK UP



Questions Scoring and Weighting (notional)

How far (NM) is the base's primary training range for live release?

← Question

Fighter	Metric Value
< 150	100
151-250	50
> 250	0

Metric

Weight ↓ Score ↓

$$X \quad (.2) = (10)$$

BCEG



Attributes and Criteria Scoring and Weighting (notional)

Question: How far (NM) is the base's primary training range for live release?

$$50 \times (.2) = 10$$

.2	Attribute 1: Runway, Ramp, Launch	35%
.1	Attribute 2: Ranges	35%
.2	Attribute 3: Weapons Handling and Storage	10%
.2	Attribute 4: Electromagnetic Spectrum / Bandwidth	5%
.3	Attribute 5: Geographical Factors	15%
1		

$$10 + 7 + 18 + 17 + 25 = 77 \times .35 = 27$$



Attributes and Criteria Scoring and Weighting (notional)

Attribute 1: Runway, Ramp, Launch	Criteria 1: Current and Future Mission	Criteria 1: Current and Future Mission	Criteria 3: Joint Operations and HLD	Criteria 4: Cost of Manpower and Ops	Criteria 4: Cost of Manpower and Ops
Attribute 2: Ranges					
Attribute 3: Weapons Handling and Storage					
Attribute 4: Electromagnetic Spectrum / Bandwidth					
Attribute 5: Geographical Factors					
Attribute 6: Airspace					
Attribute 7: Encroachment					
Attribute 8: Support Infrastructure					
Attribute 9: Mobilization Capability					
Attribute 10: Cost of Ops					
Criteria Score (raw)	84	72	89	76	81.7
Criteria Weight	65%	20%	10%	5%	
Weighted Criteria Score	54.6	14.4	8.9	3.8	



Differences

BRAC 95	BRAC 05
<u>Basic Framework</u>	
Pre-categorized bases	No pre-judgment about what a base can be
MV not a discrete part of the overall analysis	Clear distinction about MV determination
Statistics-based (standard deviation)	Value-focused based (Decision Analysis)
<u>Criteria</u>	
Criteria weight not published	Criteria weight published
Weighted 1, 2, and 7 (considered others)	Weight 1-4 (consider others)
<u>Attributes</u>	
Weighted according to base "category"	Weighted according to mission-area filter
No buckets	Weighted buckets



Similarities

BRAC 95	BRAC 05
Basic Framework	
Linear mapping (question-attribute-criteria)	Same
Criteria	
Most weight on Criteria 1	Same (?)
Criteria 7 weighted	Some Criteria 7,8 questions will be pulled into MV and weighted
Attributes	
Grouped by criteria	Same



BRAC 95 Weights Criteria

- **Criteria**
 - BRAC 95 criteria weights were NOT published in the final report
 - The weighted criteria were:
 - Criteria 1: Current and future mission 80%
 - Criteria 2: Condition of infrastructure 15%
 - Criteria 7: Community impact 5%

} Approximate

Note: Criteria 3 did not appear to have a numerical weight applied



BRAC 95 Weights Attributes

Criteria	Attributes	Large A/C	Small A/C	Space	ARC
C1: Current and Future Mission	Operational Environment (includes Rwy)	88	70	0	88
	Airfield Evaluation	12	10	0	12
	Associated A/S	0	20	0	0
		100	100	0	100
C2: Condition of Infrastructure	Base Facilities	25	25	25	28
	Housing	10	10	10	0
	Encroachment	25	25	25	28
	Air Quality	40	40	40	44
		100	100	100	100
C3: Contingency, Mob., Future Force	Ramp size (MOG)	20			
	Wide-body capable	20			
	Fuels	25			
	Munitions	20			
	Rail/Port/Proximity to Joint Users	15			
		100			
C7: Community	Off-base Housing	14			0
	Trans/Rec./Shop/Metro area	28			0
	Crime	14			0
	Education	14			0
	Employment	14			0
	Medical Care	14			0
	Recruiting Pool	0			20
	Other ARC Units?	0			20
	Population per Unit	0			40
	Total Population	0			20
		98			100



BRAC 05 Weights Attributes

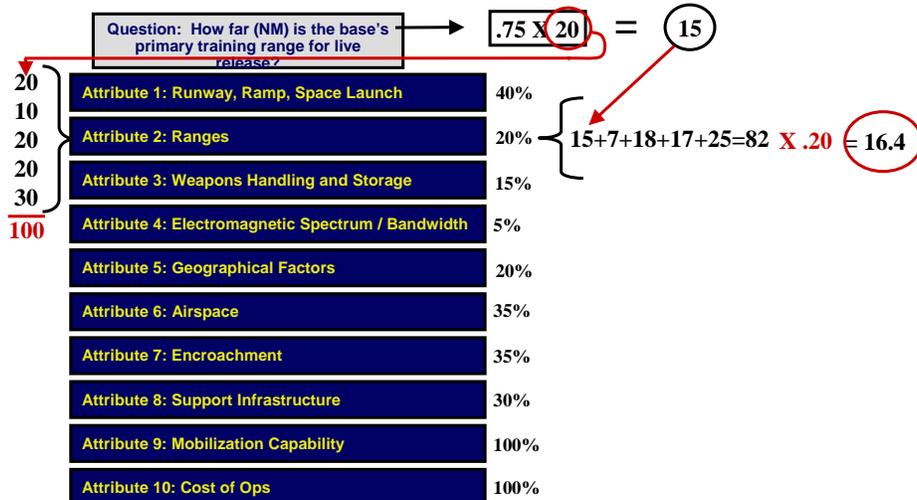
	Launch and Control				Space				ARC			
	C1	C2	C3	C4	C1	C2	C3	C4	C1	C2	C3	C4
Tanker, Airlift, C2ISR, ABL	MAF				Space				ARC			
Attribute 1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 6	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 9	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 10	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fighter, Bomber, SOF, UAV	CAF				Missile				HLD			
Attribute 1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 6	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 9	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Attribute 10	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%



Questions ?

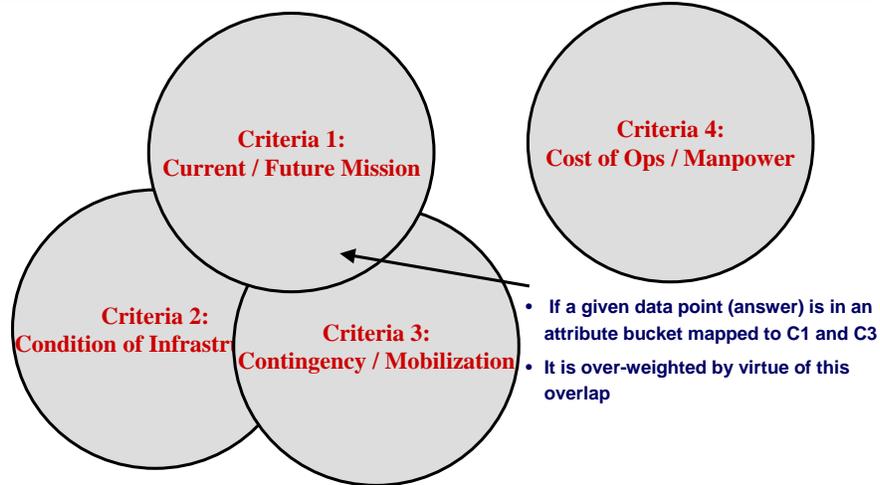


Attributes and Criteria Scoring and Weighting

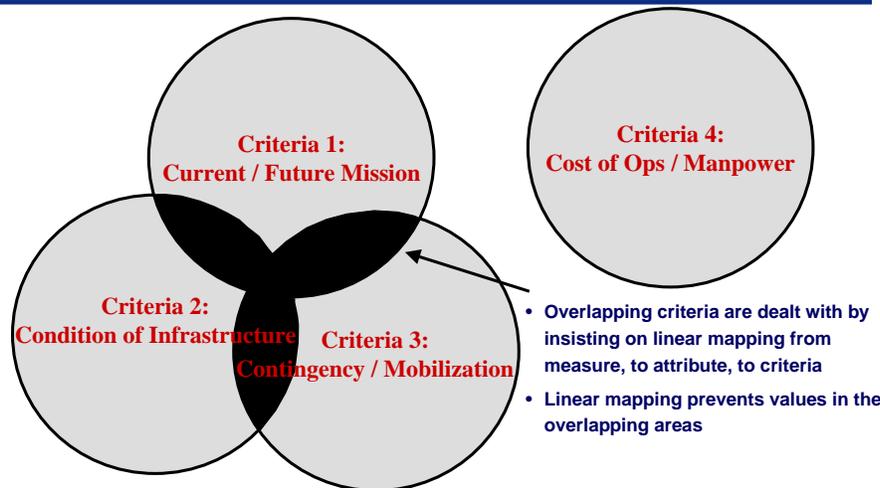




Overlapping Criteria

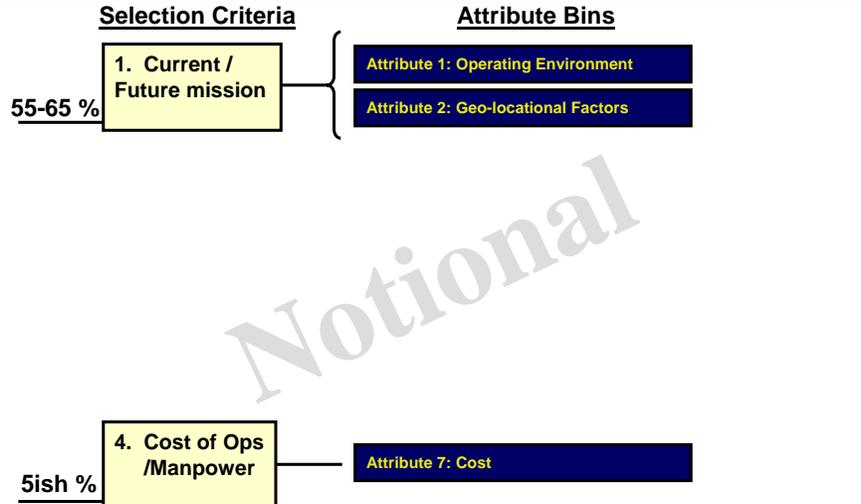


Overlapping Criteria





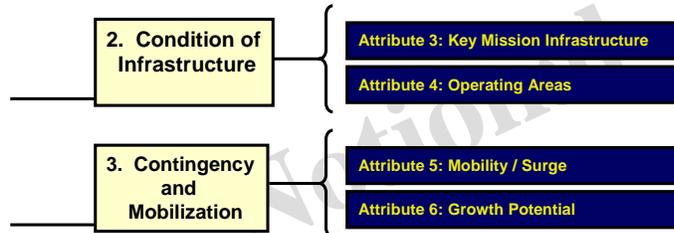
Criteria Weighting Discussion



Criteria Weighting Discussion

Selection Criteria Attribute Bins

30-40 % to share between Criteria 2 and 3



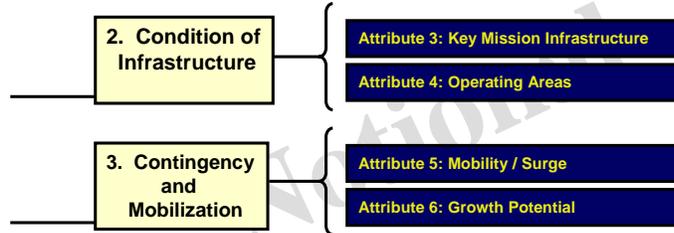


Criteria Weighting Discussion

Selection Criteria

Attribute Bins

30-40 % to share between Criteria 2 and 3



BRAC 05 Weights Criteria

	1995 (approximate)	2005 (proposed)
Criteria 1: Mission	80	
Criteria 2: Infrastructure	15	
Criteria 3: Mobilization	0*	
Criteria 4: Cost of ops	0*	
Criteria 7: Community	5	

* considered, not mathematically weighted



Criteria and Attributes

Creating the Organizational Framework

Criteria 1 - Current / Future Mission

- Ranges / tng areas (proximity to)
- Space launch azimuth
- Weather
- Demographics and education
- Environmental resources
- Airspace (local)
- EM spectrum (restrictions to)
- Noise abatement
- Range restrictions
- Non-attainment

Criteria 2 - Condition of Infrastructure

- HAZMAT handling, propellant storage
- Runways, ramp, and launch facilities
- POL (in-ground hydrants, plumbing)
- Munitions storage
- Buildable acres
- Communications bandwidth (capacity)
- Instrumentation (ranges, telemetry)
- Ranges (quality of)
- DZs, LZs, impact areas

Criteria 3 - Contingency / Mobilization

- Ramp capacity (MOG)
- Wide-body acft support
- Rail, port (access)
- Encroachment

Criteria 4 – Cost of Ops, Manpower Implications

- Cost



Population Density

Using 1990 Census Data, what was the population density (population per square mile) for the county in which your installation is located?

Using 2000 Census Data, what was the population density (population per square mile) for the county in which your installation is located?

- Use both numbers to compute a population growth
- Data is available for 02 and 03 by county
- MSA boundaries have changed since 90