

# TEAM *El Paso*

## America's Most Valuable Air-Ground Military Complex

**White Sands  
Missile Range**

(Las Cruces, NM)



**Holloman  
Air Force Base**

(Alamogordo, NM)



**Fort Bliss**

**U.S. Army Air Defense Artillery Center**

(El Paso, Texas)

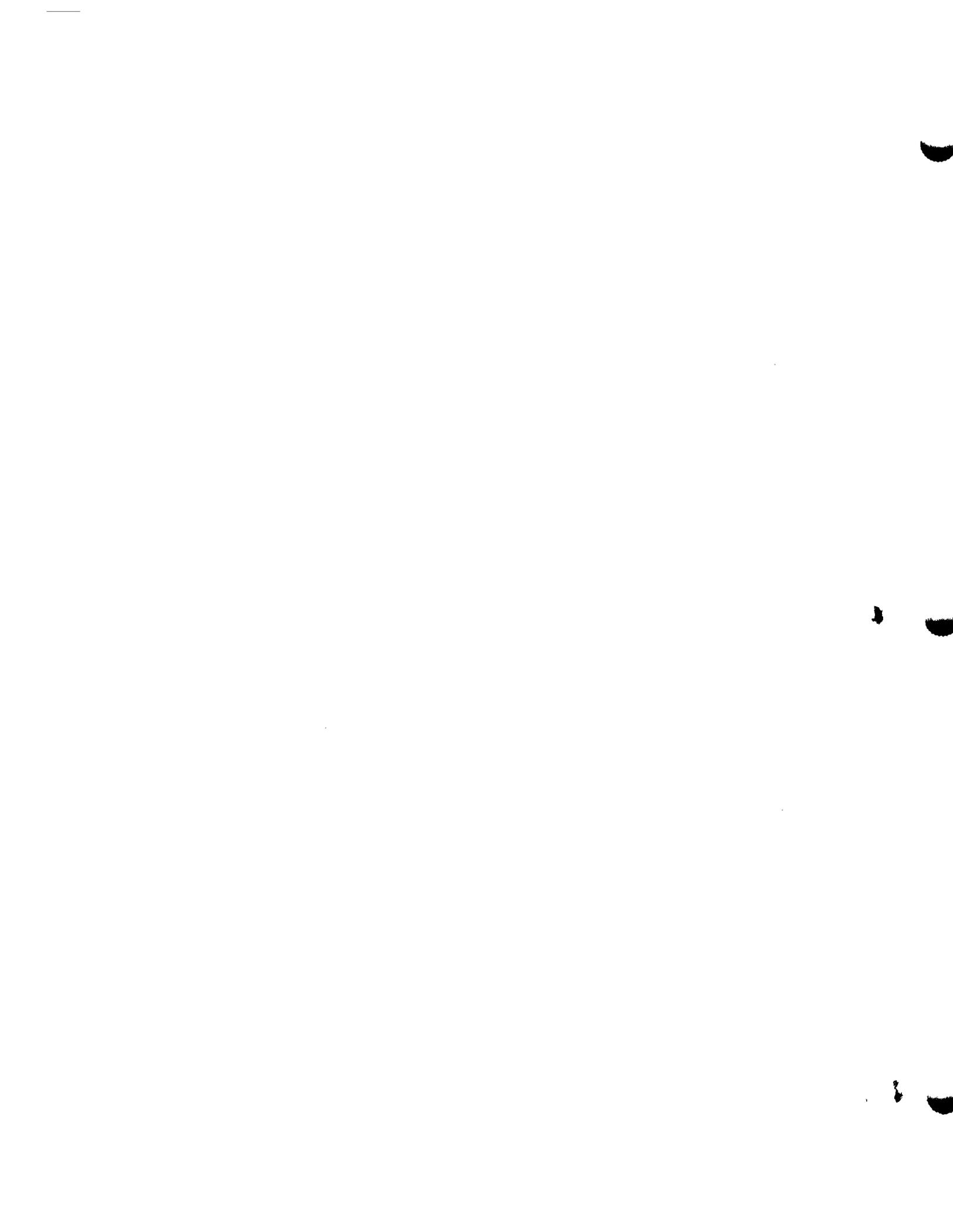


***Presentation to  
BRAC Commissioners  
July 11, 2005***



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**America's Most Valuable  
Air-Ground Military  
Complex**



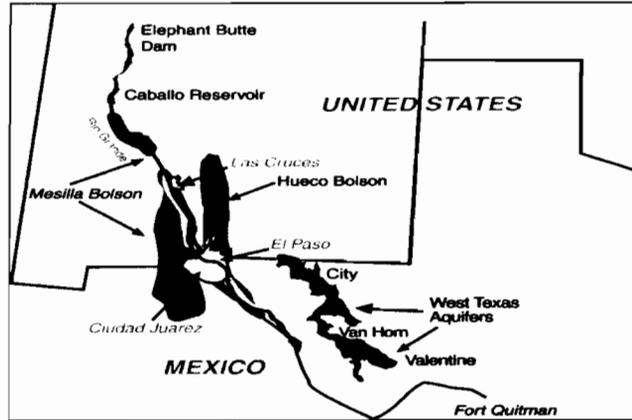
***Fort Bliss--***

***Ranked #1  
in Military Value***

***TEAM El Paso***

1. El Paso is delighted that DoD had confidence in this community's ability to receive 16,000 new troops.
2. We are prepared to ensure that they will be warmly welcomed and efficiently transitioned into our community.
3. El Paso has sufficient water, housing and school capacity to receive the 16,000 new troops-- and more.
4. Erroneous and incomplete data may have led DoD to recommend the move of the Air Defense Artillery (ADA) School & Center, as well as an operational ADA Brigade from Ft. Bliss to Ft. Sill.
5. DoD's recommendation creates a "Net Fires Center" by collocating the ADA School and Center with the Field Artillery (FA) School and Center.
6. Fort Bliss is the best environment for location of the recommended Net Fires Center

## Water for the next century and beyond...



- Current supplies exceed current maximum demand by 2 to 1
- Future supplies sufficient for more than 50 years of growth
- 50 year plan will serve 1.3 million population

## Local public schools can accommodate growth . . .

	Current Facilities	Added Capacity Future Facilities	Projected Ann. Growth in Students Percent No.	
<b>El Paso ISD</b>	<b>12,163</b>	<b>2,601</b>	<b>+ 6.5%</b>	<b>316</b>
High School	1,183	862		
Middle School	1,569	498		
Elementary	9,410	1,241		
<b>Ysleta ISD</b>	<b>4,000</b>	<b>1,000</b>	<b>+ 6.3%</b>	<b>762</b>
High School	1,948			
Middle School	2,814			
Elementary	4,064			
<b>Socorro ISD</b>	<b>8,334</b>	<b>15,600</b>	<b>+ 6.5%</b>	<b>2,294</b>
High School	1,441	4,600		
Middle School	1,156			
Elementary	2,737	6,900 (K-8)		
<b>Canutilo ISD</b>	<b>700</b>	<b>400</b>	<b>+ 6.2%</b>	<b>361</b>
High School	200	400		
Middle School	100			
Elementary	400	400		
<b>Total Excess Capacity</b>	<b>27,022</b>	<b>14,001</b>	<b>+ 2.91%</b>	<b>12,639</b>

Will support  
El Paso population  
growth for next  
ten years....

....plus a  
net gain of over  
20,000 soldiers

Sources: El Paso ISD, Ysleta ISD,  
Socorro ISD, Canutilo ISD  
June 2004

## ***Sufficient housing at great value!***

- Surge capacity -- 7,248 available units (June 2005)
- Minimum of 12,800 new units -- next three years
- Northeast Master Plan -- sufficient land for 62,000 additional units
- Great value for soldiers

### **Buy!** **(Maybe)**

Of the nation's 100 biggest metro areas, these five are the most underpriced, according to *The Local Market Monitor*:

#### UNDERVALUED BY

El Paso	18%
Fayetteville, N.C.	17%
Memphis	16%
Indianapolis	13%
McAllen/ Edinburg, Texas	12%

Source: Fortune Magazine  
2005 Retirement Guide

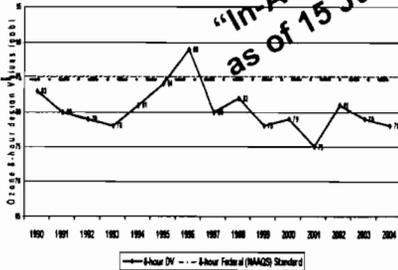
## ***Data Errors/Insufficiencies***

(In some cases-- Ft Sill was incorrectly rated higher than Ft Bliss)

- Airspace (criteria A6)— *Ft Bliss/WSMR; 7,105 sq miles; controlled mud to space.*
- Air Quality (criteria A9)—*see slide 7*
- Force Deployment (criteria A14)— *data should focus on current capability; Ft Bliss far superior to Ft Sill in rail and air deployment capability*
- Employment Opportunity (criteria A27)--*see slide 8*
- Buildable Acres (criteria A36)-- *see slide 10*

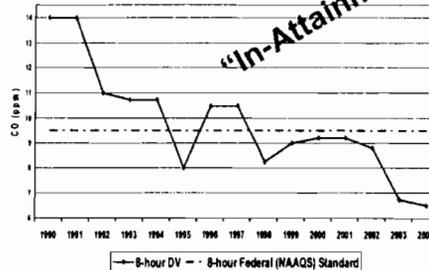
# El Paso Meeting Air Quality Standards

Ozone 8-hour Design Values for El Paso (1990-2004)



Source: Texas Commission on Environmental Quality, May 2005

Carbon Monoxide 8 Hour Design Values for El Paso 1990 - 2004



Source: Texas Commission on Environmental Quality May, 2005

## Criteria Seven Evaluation Tool

RISK EVALUATION  
**HIGH**

Attribute	LOSING INSTALLATION Fort Bliss	GAINING INSTALLATION Fort Sill	Attribute Change
Child Care	1	1	Sustain
Housing	2	3	Decline
Cost of Living	2	1	Improve
Education	1	2	Decline
Employment	3	1	Improve
Medical Health	2	3	Decline
Safety	2	3	Decline
Population Center	1	2	Decline
Transportation	1	1	Sustain
Utilities	1	3	Decline

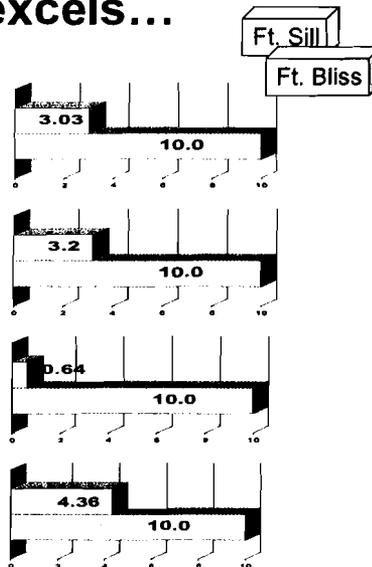
El Paso provides 3.3 times more employment opportunities than Lawton.

Cost of living should be "sustain".

Source: BRAC Reports  
JPAT Seven Front Page

## Fort Bliss significantly excels...

•Indirect Fire Capability (criteria A1)



•Heavy Maneuver Area (criteria A4)

•Light Maneuver Area (criteria A5)

•Test Range Capability (criteria A20)

...in attributes that support Joint war fighting, training, and readiness

## *We must "Train as We Fight"*

"One of the Army's most important difficult-to-reconstitute assets is maneuver land. **Maneuver land is scarce**, difficult to acquire, and an essential resource for Army training and readiness. Next to fighting and winning the nation's war, the Army's most important task is to train in preparation for those wars. With the price of failure so high, training facilities must support the commander's training mission, so if the Army is going to **"Train as We Fight"**, then the Army needs to have a constructive training environment where it can best **mirror combat operations.**"

Source: BRAC Report, Volume III, page A-42

***BRAC data indicates “large schools”  
should be at Bliss...***

Facility Capacity

	Small School	Small Admin	Large Admin
Ft Bliss	1	2	1
Ft Sill	0	0	0

MNVR Land Capacity

Light BDE	Heavy BDE	Stryker BDE	Large School
5	5	5	5
0	0	0	0

FT Bliss-- 240,137,326 acre-days

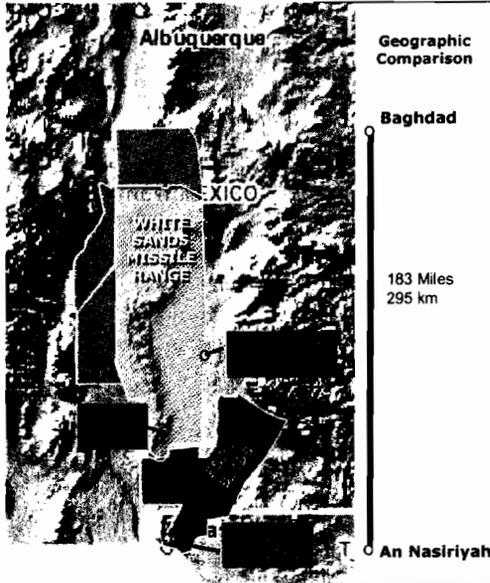
FT Sill -- 11,229,768 acre-days

- ✓ Fort Bliss can support five (5) Large Schools
- ✓ Fort Sill can support zero (0) large schools

Source: Vol. III, Table 13 pg A-23

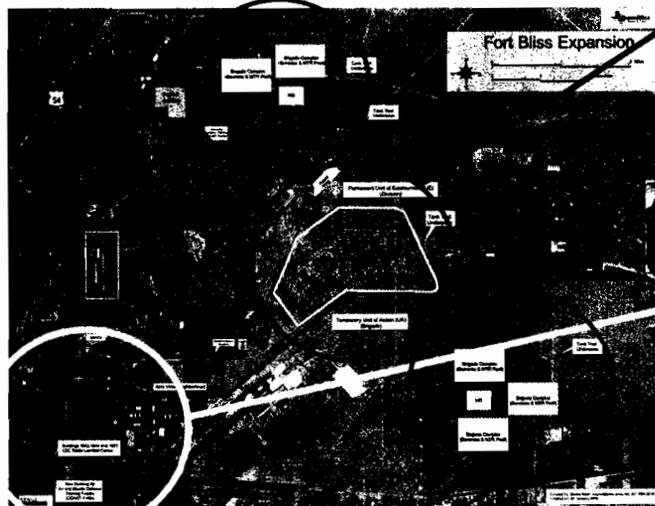
Why move a large school (Air Defense Artillery) from a location (Ft Bliss) that has maneuver space to support 5 large schools?

## Ft Bliss, White Sands and Holloman AFB



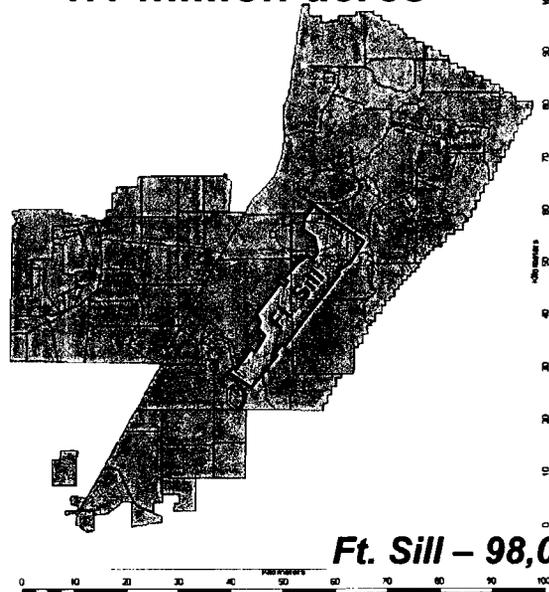
- Largest DoD-controlled air & ground space in the United States
- USAF air traffic control from “mud to space”
- Slightly smaller than Connecticut – 7,105 sq. mi.

## Space to grow - 3 divisions plus current garrison



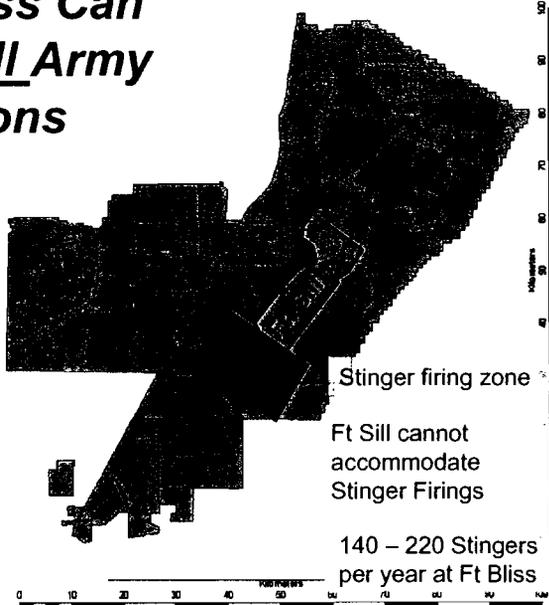
Source: Ft. Bliss stationing study, 2004

**Ft. Bliss – 1.1 million acres**



**Ft. Sill – 98,000 acres**

**Ft. Bliss Can  
Fire All Army  
Weapons**

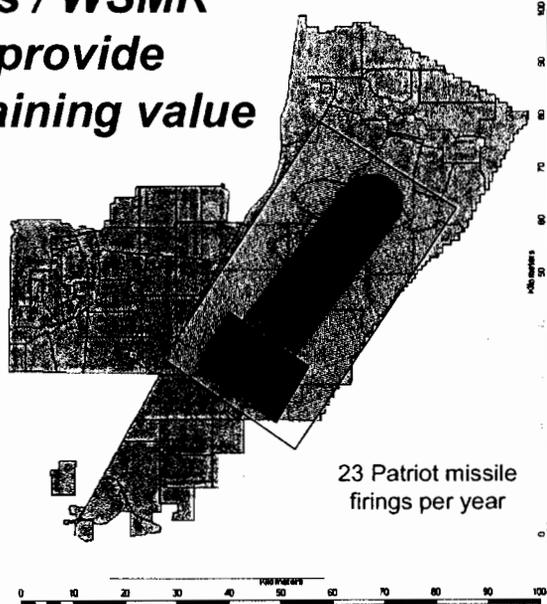


Stinger firing zone

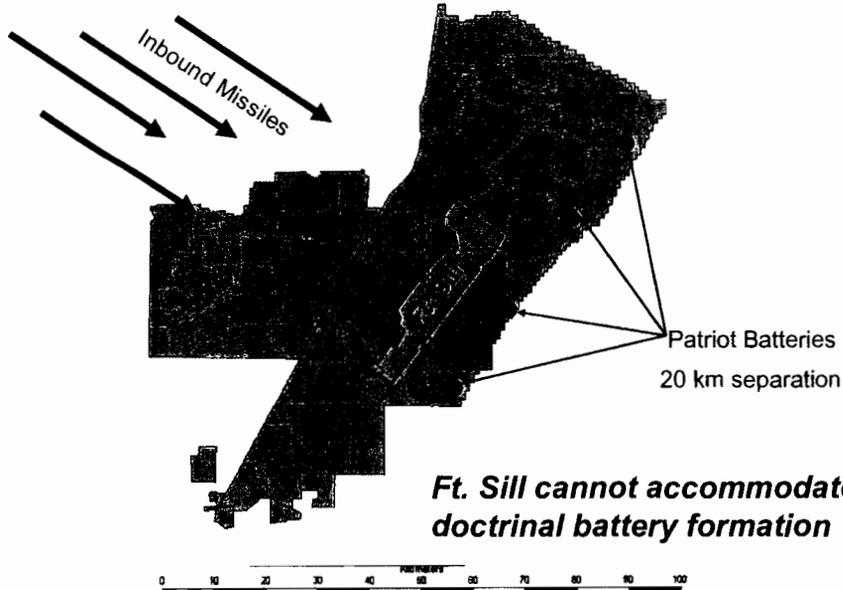
Ft Sill cannot  
accommodate  
Stinger Firings

140 – 220 Stingers  
per year at Ft Bliss

***Ft. Bliss / WSMR  
firings provide  
high training value***

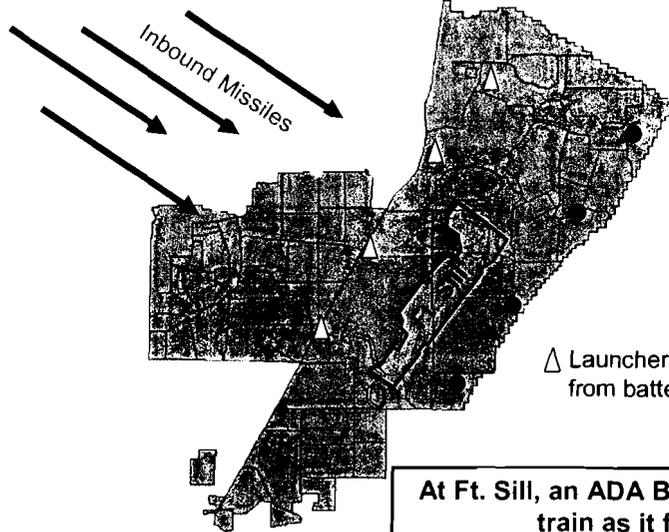


23 Patriot missile  
firings per year



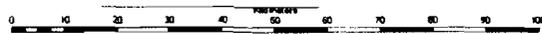
***Ft. Sill cannot accommodate  
doctrinal battery formation***

## It can at Ft. Bliss



△ Launchers-- remoted 30 km from battery

At Ft. Sill, an ADA Battalion cannot train as it fights.



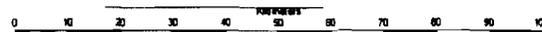
### ADA School

- ✓ Trains
- ✓ Writes Doctrine
- ✓ Forms Units
- ✓ Maneuvers
- ✓ Test Fires
- ✓ Evaluates and Certifies



### Fielding (2008 and beyond)

- ✓ SLAMRAAM
- ✓ THAAD
- ✓ MEADS
- ✓ JLENS



## Fort Bliss / WSMR / HAFB is ideal...

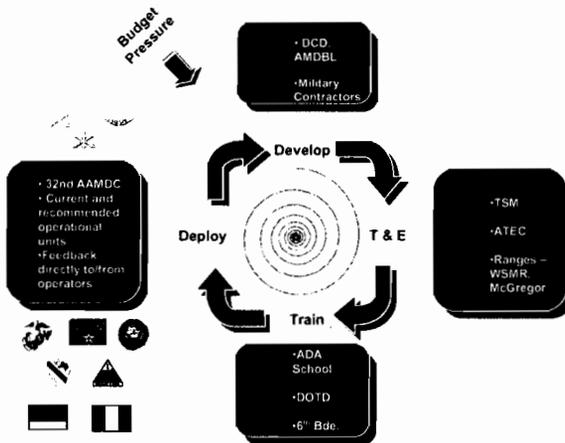


Future systems will extend the reach of both ADA and FA.

...requiring large areas...

...for development, operational testing, and training....

## Spiral Development.... A Proven Capability at Ft Bliss



Proven track record  
(Patriot - C-RAM - MEADS)

1<sup>st</sup> AD, aviation and fires bdes (recommended) will enhance spiral capabilities at Ft Bliss

ADA's spiral capability will be less efficient from Ft Sill

German AD Center is resident at Ft. Bliss  
(Will impact development of MEADS)

Rapid iterative "spiral" development delivers new and improved capability to the warfighter... efficiently and cost-effectively.

## ***Fort Bliss environment – better for:***

- **Army Transformation**  
Composite AMD Battalions, New Systems
- **Joint, Combined and Coalition training**  
1<sup>st</sup> AD; USAF; Navy; USMC; JTF North; German AD Center;  
JNTC persistent site; Army's largest ground/air space
- **Firing of weapons systems**  
Ranges accommodate all Army weapon systems
- **Deployments**  
State of the art air and rail deployment – power projection platform
- **Testing and Evaluation**  
WSMR; HAFB; Aviation; Fires Bde; FCS field testing;  
***J-UCAS fires networking***

## ***Fort Bliss environment – better for:***

- **Rapid, Iterative (Spiral) Developments**  
Patriot/MEADS, C-RAM, contractors are here
- **Interoperability**  
Roving Sands (Joint, Combined Arms and Coalition)
- **Force Stabilization**  
More comparable units, linked to ADA and FA Schools and Centers
- **Quality of Life**  
BRAC reports-- a move from Bliss to Sill is "high-risk", but Sill to Bliss is low-risk

**We urge the Commission to:**

- ***carefully examine the data we have provided***
- ***recognize that location of the Net Fires Center at Ft Bliss best serves Army Transformation***
- ***propose that the Net Fires Center should be located at Fort Bliss***

***MG James P. Maloney  
US Army, Retired***

- Commissioner, Texas Military Preparedness Commission
- Commanding General, Fort Bliss (1982-1985)
- 31 years of service
- Air Defense Artillery, Field Artillery, Infantry

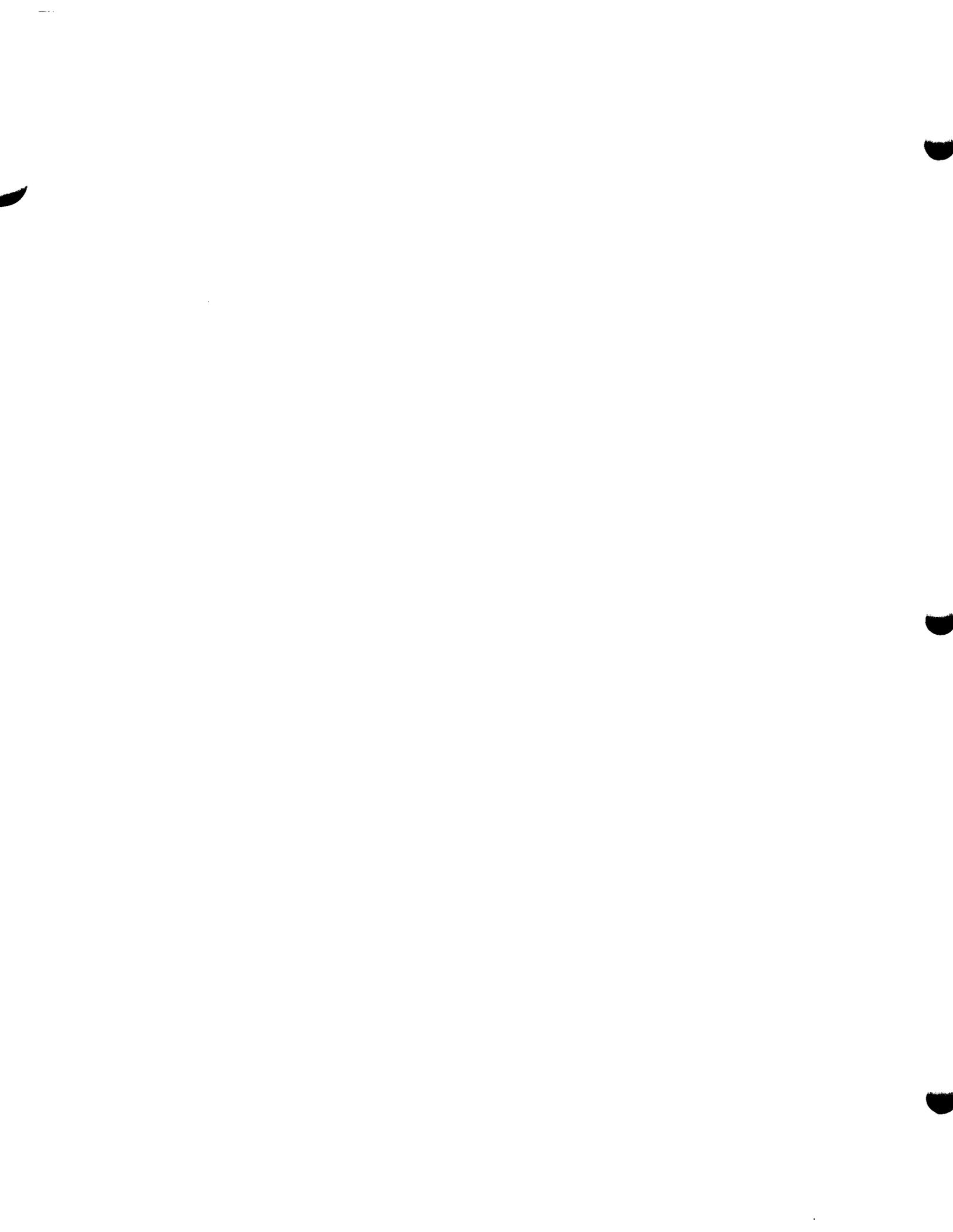
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**Testimony of Team El Paso**

**Hearing of**  
**Base Realignment and Closure Commission**

**July 11, 2005**  
**San Antonio, Texas**

**Witnesses:**

**U.S. Representative Silvestre Reyes**  
**Bob Cook, El Paso Regional Economic Development Corp.**  
**MG (Ret) James P. Maloney**



**REYES:**

WELCOME

MR. CHAIRMAN, COMMISSIONERS: WELCOME TO TEXAS.

THANK YOU FOR YOUR TIME AND ATTENTION.

COMMUNITY SUPPORT FOR THE NEW TROOPS

EL PASO IS VERY ENTHUSIASTIC ABOUT THE RECOMMENDATION TO BRING OVER 16,000 NEW MILITARY AND CIVILIAN PERSONNEL TO FORT BLISS. WITH THESE RECOMMENDATIONS, FT BLISS & EL PASO WOULD BECOME HOME TO THE 1<sup>ST</sup> ARMORED DIVISION, AN AVIATION BRIGADE AND A FIELD ARTILLERY BRIGADE. OUR TOP PRIORITY IS TO WARMLY WELCOME THESE NEW TROOPS, CIVILIANS AND THEIR FAMILIES AND PROVIDE A SMOOTH TRANSITION TO OUR COMMUNITY. IN RECENT YEARS, WE HAVE MADE KEY INVESTMENTS IN INFRASTRUCTURE TO ENSURE OUR COMMUNITY HAS THE ABILITY TO SUPPORT CURRENT AND FUTURE TROOPS.

THE DOD RECOMMENDATIONS ALSO INCLUDE REALIGNMENT OF THE ADA CENTER AND SCHOOL AND AN ADA BRIGADE FROM FORT BLISS TO FORT SILL. WE BELIEVE THE DATA WILL DEMONSTRATE A BETTER RECOMMENDATION. WE ASK YOU TO LISTEN CLOSELY TO OUR

RATIONALE. OUR REGION CAN BEST SUPPORT ONE OF THE MOST HIGH TECH MISSIONS OF THE JOINT WAR FIGHTER—NETWORKED FIRES.

THE BRAC REPORT REQUESTS THAT EL PASO SPECIFICALLY PROVIDE DOCUMENTATION RELATIVE TO WATER, PUBLIC EDUCATION AND HOUSING.

OUR WRITTEN SUBMISSION INCLUDES ALL THE VERIFYING, BACKUP DATA.

#### WATER

WE HAVE ENSURED SUFFICIENT WATER FOR THE NEXT CENTURY AND BEYOND -- WITH SIGNIFICANT SUPPLIES OF GROUNDWATER, SURFACE WATER, RECLAIMED WASTE WATER, CONSERVATION EFFORTS, AND FUTURE IMPORTATION FROM NEIGHBORING COUNTIES. THIS MONTH WE WILL ALSO BREAK GROUND ON THE WORLDS LARGEST INLAND DESALINATION PLANT – WHICH WILL PRODUCE 27.5 MILLION GALLONS PER DAY BEGINNING NEXT YEAR.

ED ARCHULETA (ED RAISES HAND) GENERAL MANAGER OF THE EL PASO WATER UTILITIES PUBLIC SERVICE BOARD IS HERE TO ANSWER ANY QUESTIONS.

#### SCHOOLS

WE HAVE SUFFICIENT SURGE CAPACITY TO ACCEPT THE ADDITIONAL STUDENTS PROJECTED TO ACCOMPANY THE INCOMING SOLDIERS. WITH CURRENT AVAILABLE CAPACITY OF 27,000 SEATS AND THE RECENT APPROVAL OF \$645M IN BONDS WILL GENERATE AN ADDITIONAL 14,900 SEATS.

WITH OUR LOW STUDENT-TEACHER RATIO AND RISING STUDENT ACHIEVEMENT RATES, WE ARE READY TO PROVIDE QUALITY EDUCATION TO THE CHILDREN OF OUR MEN AND WOMEN IN UNIFORM, AS WELL AS SUPPORT FOR HIGH TECH TRANSFORMATION.

ROBERT ORTEGA (INTERIM SUPERINTENDENT) IS HERE FROM THE EL PASO ISD TO ANSWER ANY QUESTIONS YOU MAY HAVE ABOUT THE CAPACITY AND QUALITY OF EL PASO SCHOOLS.

### HOUSING

OF THE PROJECTED 11,500 TROOPS FOR FORT BLISS, AN ESTIMATED 60% OR 6,900 OF THESE FAMILIES WILL LIVE OFF-POST.

WE HAVE CURRENT SURGE CAPACITY OF OVER 7,200 UNITS AND CAN DOCUMENT PLANNED CONSTRUCTION OF AT LEAST 12,800 NEW UNITS OVER THE NEXT THREE YEARS. ALMOST 70% OF THESE NEW UNITS WILL BE IN NORTHEAST EL PASO WITH EASY ACCESS TO FORT BLISS.

IN ADDITION – A MASTER PLAN FOR NORTHEAST EL PASO IDENTIFIES SUFFICIENT LAND TO CONSTRUCT AT LEAST 62,000 NEW RESIDENTIAL UNITS AS MARKET DEMANDS MAY DICTATE.

NOW, I'D LIKE TO TURN OVER THE DISCUSSION TO BOB COOK, PRESIDENT OF THE EL PASO REGIONAL ECONOMIC DEVELOPMENT CORPORATION.

**COOK: (254 SECONDS—4 MINUTES 14 SECONDS)**

GOOD MORNING - IT HAS BEEN MY GREAT PRIVILEGE TO REPRESENT EL PASO'S PRIVATE SECTOR AS WE HAVE WORKED DILIGENTLY OVER THE PAST THREE YEARS TO MAKE SURE THAT OUR COMMUNITY'S MESSAGE TO THE MILITARY HAS BEEN CLEARLY UNDERSTOOD. WITHIN THAT CONTEXT, IT IS ALSO MY DUTY TODAY TO DEMONSTRATE THAT THE BRAC REPORT CONTAINS ERRONEOUS, AND IN SOME CASES INCOMPLETE DATA AS IT RELATES TO OUR COMMUNITY AND OUR REGIONAL INSTALLATION -- FORT BLISS/WHITE SANDS MISSILE RANGE AND HOLLOMAN AFB. (25 SECONDS)

(DATA ERRORS SLIDE) (30 SECONDS)

I WILL FOCUS ON THE MOST SIGNIFICANT DATA THAT INDICATES WHY WE BELIEVE A FAULTY RECOMMENDATION WAS MADE TO ESTABLISH THE NET FIRES CENTER AT FORT SILL, INSTEAD OF THE LOCATION MOST ABLE TO ACCOMMODATE IT -- FORT BLISS. THE

CURRENT SLIDE DEMONSTRATES FIVE (5) MILITARY VALUE CRITERIA FOR WHICH BRAC DATA INCORRECTLY GIVES A HIGHER RELATIVE SCORE TO FORT SILL. WE HAVE ALREADY SUBMITTED INFORMATION THAT SUPPORTS OUR POSITION TO THE BRAC COMMISSION STAFF.

(AIR QUALITY SLIDE) – 40 SECONDS

THE BRAC REPORT UTILIZES 2003 DATA WHICH CORRECTLY INDICATED THAT EL PASO WAS “NON-ATTAINMENT” FOR OZONE, CARBON MONOXIDE AND PM<sup>10</sup> (PARTICULATE MATTER). THE CURRENT SLIDE SHOWS AS OF 15 JUNE 2005, WE ARE OFFICIALLY IN ATTAINMENT FOR OZONE. LATER THIS MONTH, THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) IS EXPECTED TO FORMALLY PETITION TO REMOVE OUR COMMUNITY FROM THE NON-ATTAINMENT LIST FOR CARBON MONOXIDE BASED ON THE DATA YOU SEE HERE ON CHART 2. STATE DATA, INCLUDED IN YOUR BINDER, ALSO INDICATES EL PASO IS MONITORING “IN ATTAINMENT” FOR PM<sup>10</sup>. THE STATE IS CURRENTLY WORKING WITH THE EPA REGARDING THIS ISSUE. **WE HAVE NO CHALLENGES TO RECEIVE THESE NEW MISSIONS FROM AN AIR QUALITY PERSPECTIVE.**

(HIGH RISK SLIDE) 75 SECONDS

THIS CHART CONTAINS DATA THAT COME DIRECTLY FROM THE BRAC REPORT. THE RECOMMENDATION TO MOVE THE ADA CENTER AND SCHOOL FROM FT BLISS TO FT SILL IS RATED AS "HIGH RISK", BASED ON TEN QUALITY OF LIFE FACTORS. THIS CHART INDICATES, THAT DOD BELIEVES SIX FACTORS WILL WORSEN FOR SOLDIERS AND THEIR FAMILIES, IF THE ADA CENTER AND SCHOOL ARE REALIGNED TO FORT SILL, OKLAHOMA. ONLY TWO FACTORS WERE DEEMED TO HAVE IMPROVED -- COST OF LIVING AND EMPLOYMENT OPPORTUNITY. UTILIZING THE SAME DATA CONSIDERED BY DOD, WE HAVE PRESENTED ADDITIONAL INFORMATION TO COMMISSION STAFF THAT CLEARLY INDICATES EL PASO PROVIDES 3.3 TIMES MORE EMPLOYMENT OPPORTUNITIES THAN DOES LAWTON. WE HAVE ALSO SUBMITTED CURRENT, OBJECTIVE DATA IN YOUR BINDER, THAT DEMONSTRATES COST OF LIVING IS VIRTUALLY EQUAL IN THE TWO COMMUNITIES.

THE RECOMMENDATION SHOULD BE PLACED CLEARLY IN THE "HIGH RISK" CATEGORY. WE BELIEVE THE COMMISSION SHOULD CONSIDER THAT IF THIS IS A "HIGH RISK" MOVE FOR SOLDIERS, CIVILIANS AND THEIR FAMILIES-- IT WILL ALSO BE HIGH RISK TO THE HIGH TECH CONTRACTORS WHO CURRENTLY EMPLOY HUNDREDS OF PERSONNEL IN EL PASO, THAT WILL BE NEEDED IN CLOSE PROXIMITY TO SUPPORT THE ADA AND NET FIRES MISSION.

(FORT BLISS SIGNIFICANTLY EXCELS)—17 SECONDS

THE CURRENT CHART, ALSO TAKEN FROM THE BRAC REPORT, DEPICTS FOUR MILITARY VALUE CRITERIA WHERE FORT BLISS CAPABILITIES SIGNIFICANTLY EXCEED THOSE OF FORT SILL. THESE CRITERIA, WE BELIEVE, ARE CENTRAL TO ACHIEVING THE CRITICAL OBJECTIVES OF JOINT, WAR FIGHTING, TRAINING AND READINESS. WE MUST POINT OUT, THAT THE WORKFORCE OF EL PASO (THE NATION'S TWENTY-FIRST LARGEST CITY) IS ALMOST SEVEN TIMES LARGER THAN THAT OF LAWTON, OK.

(WE MUST TRAIN AS WE FIGHT) -- 17 SECONDS

ON THE SCREEN BEFORE YOU NOW, IS WORDING TAKEN DIRECTLY FROM THE BRAC REPORT. THE KEY ELEMENTS OF THIS QUOTATION FROM THE ARMY'S DETAILED ANALYSIS-- MANEUVER LAND IS DIFFICULT TO RE-CONSTITUTE-- WE MUST TRAIN AS WE FIGHT-- THEREFORE THE IDEAL TRAINING ENVIRONMENTS ARE THOSE THAT BEST MIRROR COMBAT OPERATIONS.

(BRAC DATA INDICATES...)— 30 SECONDS

AS I TURN THE PRESENTATION OVER TO MG MALONEY-- ONE FINAL POINT MUST BE BROUGHT TO YOUR ATTENTION. THE CURRENT SLIDE PULLS FROM TABLE 13 OF ARMY'S DETAILED ANALYSIS AND WE CAN DISCERN CLEAR INFERENCES FROM THESE DATA. DOD PLACES SIGNIFICANT

VALUE ON LOCATING LARGE SCHOOLS (SUCH AS AIR DEFENSE ARTILLERY AND FIELD ARTILLERY) – IN CLOSE PROXIMITY TO AMPLE MANEUVER AREAS. THESE DATA LEAD US TO ASK A COMPELLING QUESTION---

(QUESTION SLIDE) 20 SECONDS

WHY MOVE A LARGE SCHOOL (AIR DEFENSE) FROM A LOCATION (FT BLISS) THAT HAS MANEUVER SPACE TO SUPPORT 5 LARGE SCHOOLS?

GOOD MORNING, I AM MAJOR GENERAL JIM MALONEY – US ARMY RETIRED . WE PLAN TO PROVE TO YOU THAT THE NET FIRES CENTER SHOULD BE PLACED AT FORT BLISS. WE WILL SHOW THAT FT BLISS PROVIDES A FAR SUPERIOR ENVIRONMENT.

#### FT BLISS/WS/HAFB

THESE ARE THE BASES THAT COMPRISE THE BLISS-WHITE SANDS-HOLLOMAN AIR FORCE BASE COMPLEX. THEY LIE IN HIGH DESERT TERRAIN THAT RESEMBLES MAJOR CONTINGENCY AND COMBAT AREAS.

#### FT BLISS FLY-IN

FORT BLISS COMPRISES MORE THAN ONE MILLION ACRES.

#### WSMR FLY-IN

WHITE SANDS MISSILE RANGE IS CONTIGUOUS TO BLISS. IT HAS ABOUT 2 MILLION ACRES.

## HOLLOMAN AFB

HOLLOMAN IS ON WSMR

### CALL-UP AREAS

ABOUT 1 MILLION MORE ACRES ARE AVAILABLE FOR CALL-UP, UNDER CONTRACT.

### 3 BULLETS

THIS AREA COMPRISES MORE THAN 25% OF ALL ARMY LAND IN THE U.S.

(Read bullets)

- LARGEST DOD-CONTROLLED AIR & GROUND SPACE IN THE UNITED STATES
- USAF AIR TRAFFIC CONTROL FROM MUD TO SPACE
- SLIGHTLY SMALLER THAN THE STATE OF CONNECTICUT

NOW LETS LOOK AT THE SOUTHERN TIP OF THE MILITARY REGION.

### FORT BLISS STATIONING STUDY SLIDE

IN 2004 FORT BLISS, AT DA REQUEST, STUDIED ITS ABILITY TO STATION AS MANY AS THREE DIVISIONS. FORT BLISS ASSUMED THAT THE ADA BRIGADES AND SCHOOL AND CENTER (POINT) WOULD REMAIN IN THE CANTONMENT AREA. BLISS IDENTIFIED THREE NEW DIVISION AREAS, THIS AREA , ABOUT FIVE MILES FROM THE CANTONEMENT AREA, WOULD HOUSE THE 1ST ARMORED DIVISION.

THERE HAS BEEN A SUGGESTION THAT MOVING THE AIR DEFENSE SCHOOL, CENTER, AND A TACTICAL ADA BRIGADE TO FORT SILL WOULD OPEN NECESSARY SPACE TO INCOMING TROOPS. SUCH A VACATION OF SPACE IS NOT NECESSARY.

FORT BLISS HAS PLENTY OF CAPACITY, AS SHOWN IN THE BLISS STUDY AND BRAC DATA.

#### FORT BLISS 1.1 MILLION ACRES

THIS IS FORT BLISS, WITHOUT WHITE SANDS OR HOLLOMAN.

#### FLY-IN FT. SILL

THIS IS A TO-SCALE OUTLINE OF FORT SILL. SILL IS ABOUT ONE-TWELFTH AS LARGE AS FORT BLISS.

#### FLY-IN (STINGER)

STINGER IS THE SHORTEST RANGE ADA MISSILE. IT CANNOT BE FIRED WITHIN FORT SILL'S BOUNDARIES. ADA SCHOOL STUDENTS FIRE 140-220 STINGERS PER YEAR AT FORT BLISS. THE RANGES AT FORT SILL DO NOT ACCOMMODATE ANY ADA MISSILES.

#### PATRIOT FLY-IN

FORT BLISS TROOPS FIRE, ON AVERAGE, 23 PATRIOT MISSILES EVERY YEAR, FOR MISSILE LOT VALIDATION AND AS A PART OF WHITE SANDS

TESTING AND EVALUATION. THIS IS A PRIME EXAMPLE OF THE CROSS-FUNCTIONAL USE OF TRAINING AND TESTING RANGES.

FORT BLISS TROOPS OBTAIN GREAT TRAINING VALUE FROM THIS LIVE FIRING. IT WOULD BE DIFFICULT AND COSTLY FOR ELEMENTS OF A FORT SILL BASED ADA BRIGADE TO TRAVEL MORE THAN 600 MILES ONE-WAY TO PARTICIPATE IN THESE ACTIVITIES.

AT FORT SILL, AN OPERATIONAL ADA BRIGADE CANNOT TRAIN AS IT FIGHTS. HERE IS WHY-----

#### DIRECTION OF ATTACK FLY-IN

PATRIOT DOCTRINE SPECIFIES 20-30 KILOMETERS BETWEEN BATTERIES TO OBTAIN THE OPTIMUM DEFENDED AREA.

HERE ARE FOUR BATTERIES (POINT) TO SCALE ARRAYED IN LINE. YOU COULD DO THAT WHEN YOU ARE FAIRLY SURE OF THE DIRECTION OF ATTACK.

EVEN USING CONSERVATIVE DISTANCES, THE ARRAY OF BATTERIES WOULD NOT FIT ON THE FORT SILL RESERVATION.

#### LAUNCHER FLY-IN

NOW LETS LOOK AT REMOTE LAUNCHER LOCATION. A PATRIOT BATTERY HAS SIX LAUNCHERS. A LAUNCHER, OR A PAIR OF LAUNCHERS, CAN BE LOCATED FROM 6-30 KILOMETERS FROM THE ENGAGEMENT CONTROL STATION AT THE BATTERY (POINT). THIS ENLARGES THE DEFENDED

AREA, AND CAN IMPROVE PROBABILITY OF KILL OF AN INCOMING MISSILE. FORT SILL IS FAR TOO SMALL FOR THIS TASK. TO SQUEEZE THE TRAINING INTO A SMALL AREA WOULD INJECT A LACK OF REALISM INTO TRAINING IN MISSILE RESUPPLY, MAINTENANCE ACTIVITIES, COMMUNICATION DISTANCES, AND SOLDIER CARE. AT FORT SILL, AN ADA BATTALION CANNOT TRAIN AS IT FIGHTS.

#### FUTURE SYSTEMS FLY-IN

IN THE NEAR FUTURE NEW SYSTEMS WILL ENTER THE FORCE. EACH WILL EXTEND THE RANGE OF THE SYSTEMS THEY WILL REPLACE. TYPICALLY--

#### FLY-IN ADA SCHOOL

THE ADA SCHOOL TRAINS THE TROOPS.

#### TRAINS

WRITES THE DOCTRINAL MANUALS

#### FORMS

FORMS THE NEW ORGANIZATIONS BY ASSEMBLING THE TRAINED TROOPS AND THEIR EQUIPMENT.

#### FIRES

THE NEW ORGANIZATIONS MANEUVER AND, WHEN FULLY TRAINED, THEY FIRE THEIR NEW SYSTEMS TO PROVE AND DISPLAY THEIR ABILITY

#### CERTIFY

AND THE CENTER CERTIFIES THE UNITS' ABILITY TO FIGHT.

FIELDING

SLAMRAAM

FIELDING BEGINS IN 2008 FOR THE SLAMRAAM (SURFACE LAUNCHED  
ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE),

THAAD

FOLLOWED BY THAAD (TERMINAL HIGH ALTITUDE AREA DEFENSE)

MEADS

THEN, THE MEADS (MEDIUM EXTENDED AIR DEFENSE SYSTEM) THAT IS  
BEING DEVELOPED WITH THE GERMANS AND THE ITALIANS

JLENS

AND THE JLENS AEROSTAT-MOUNTED RADAR, A CURRENTLY  
DEVELOPING TECHNOLOGY.

BLISS, WSMR, HAFB IDEAL

EACH OF THESE MISSILE SYSTEMS IS LONGER-RANGED THAN THE SYSTEM  
IT WILL REPLACE. THE REACH OF ADA WILL CONTINUE TO REQUIRE VERY  
LARGE GROUND AND AIR SPACE, AND INCREASING ELECTROMAGNETIC  
RADIATION PERMISSION AND COORDINATION.

THE FORT BLISS, WSMR, HOLLOMAN AFB COMPLEX IS IDEAL.

### SPIRAL DEVELOPMENT

RAPID, ITERATIVE DEVELOPMENT CALLED SPIRAL HAS BEEN PROVEN OVER SEVERAL DECADES AT FORT BLISS. SPIRAL DEVELOPMENT TRANSFORMS COMPLEX SYSTEMS SUCH AS PATRIOT – INCREMENTALLY AND RAPIDLY. ALL ELEMENTS THAT (POINT) DEVELOP, TEST AND EVALUATE, TRAIN, OPERATE AND DEPLOY ARE RESIDENT AT FT BLISS.

### FLY-IN 1ST AD AND THREE

- PROVEN TRACK RECORD
- NEW TROOPS MAKE IT EVEN BETTER
- IT WON'T WORK AS WELL IF WE MOVE PART TO SILL
- GERMANS ARE AT BLISS, PARTNERS IN MEADS

### FORT BLISS BETTER ENVIRONMENT

FORT BLISS IS A FAR BETTER ENVIRONMENT FOR--

- ARMY TRANSFORMATION
- JOINT, COMBINED AND COALITION TRAINING
- FIRING OF WEAPONS SYSTEMS
- DEPLOYMENTS
- TESTING & EVALUATION
- SPIRAL CAPABILITY
- INTEROPERABILITY
- FORCE STABILIZATION

- AND QUALITY OF LIFE

PROPOSED COURSE....

WE URGE THE COMMISSION TO

- CAREFULLY EXAMINE THE DATA WE HAVE PROVIDED

- RECOGNIZE THAT LOCATION OF THE NET FIRES CENTER AT FT BLISS

BEST SERVES ARMY TRANSFORMATION

- PROPOSE THAT THE NET FIRES CENTER SHOULD BE LOCATED AT FORT

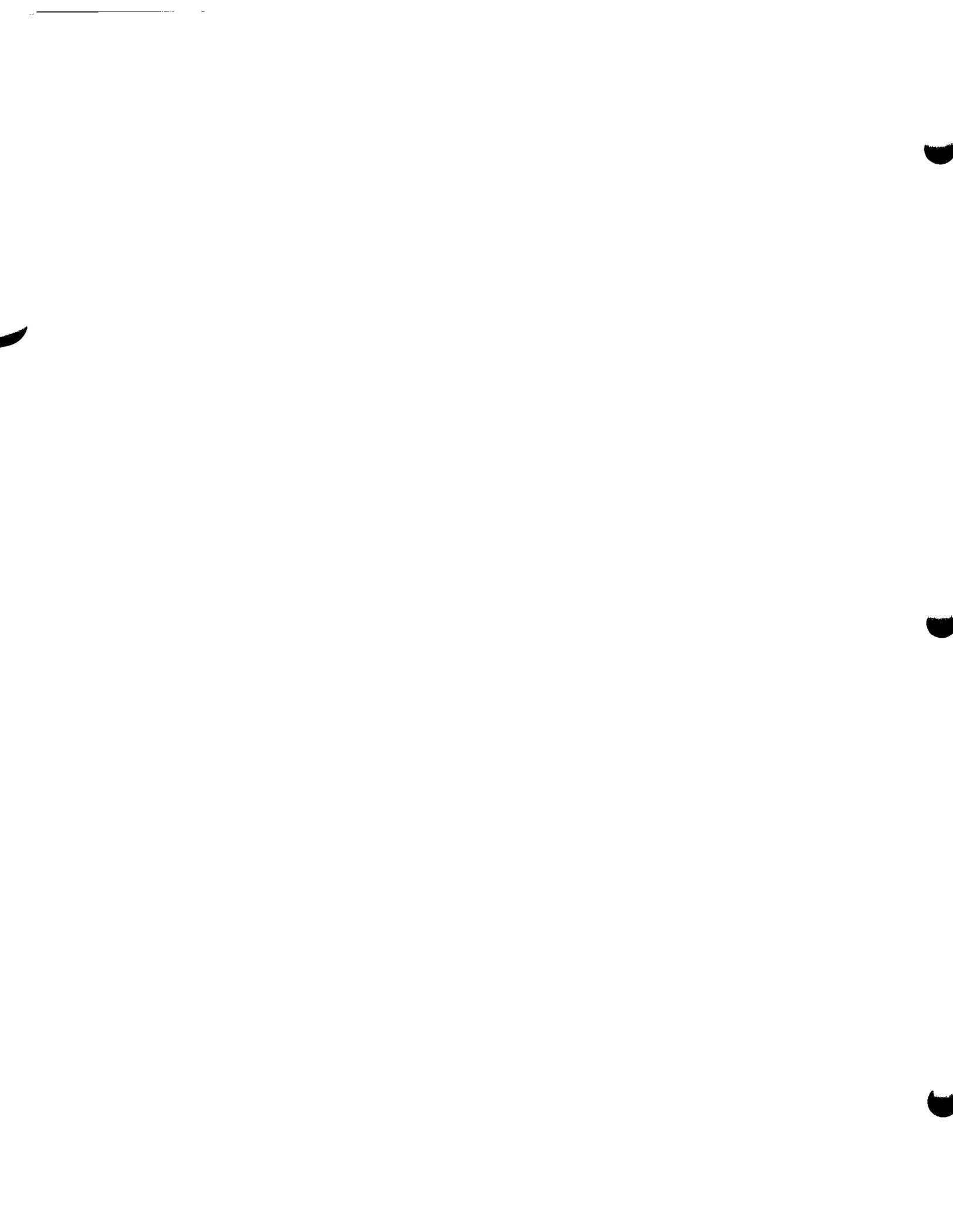
BLISS

THANK YOU.

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# TEAM Epsilon

*Welcomes....*

Mr. Dinsick

LTC Felix

Mr. Miller

**America's Most Valuable  
Air-Ground Military  
Complex**

**White Sands  
Missile Range**

**Holloman  
Air Force Base**

**Fort Bliss**  
U.S. Army Air Defense Artillery Center



**Ranked #1  
Installation in  
America  
in military value  
by DoD**

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A quote about our region:

*"In this valley, there's more light, more air,  
more space than any other place in the world.  
There is a certain freedom I believe that the  
people who are born here have. They dream big  
dreams, and think big thoughts, because there  
is nothing to be in the area."*



© 2012 El Paso

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**Hooah!**

- El Paso loves active duty personnel and their families
- El Paso is prepared to support significant growth in troop strength
- The region's assets support transformational concepts such as networked fires
- The region's current and recommended assets enhance the rapid delivery of capabilities to the warfighter

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## El Paso's Top Priority...

Ensure a warm welcome and a smooth transition to all incoming military and their families recommended for Fort Bliss-- including the BCT- Heavy currently transitioning to the post.



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### Freedom Fiesta -

Freedom Fiesta Sponsors

Bank of the West  
Caldwell Bookery & Writing Services  
Desert Lake Distribution  
El Paso Office  
El Paso Office  
JWA Insurance  
M. E. Scherer  
Operations Research  
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Western Printing

Bank of America  
Citi Bank  
Energy Services  
SVC Group

El Paso Office  
3000 El Paso Street, Suite 100  
El Paso, TX 79901  
www.fortbliss.com

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## Spousal Employment

### Project Endeavor

- El Paso Workforce Board
- El Paso Chamber's Project Endeavor
- Assists spouses who are retraining for jobs involuntarily due to military spouse's reassignment

### Greater EP Chamber's Accompanying Spouse Program

- Assists those relocated to the El Paso area
- Chamber pays that individual to meet with local businesses that match the skills of the applicant

Objective - Provide jobs for military spouses and respond to employee labor needs

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## Warm Welcome for Soldiers

- Daily incoming troop briefing by local business reps
- Discounts on products and services for active duty personnel and their families
- Quality of life information – churches, schools, etc...
- Access to web-based services – [www.elpaso.org](http://www.elpaso.org)




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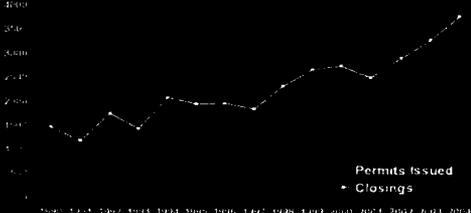
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## Housing Availability

June 2005

- 5,370 apartment units
- 1,615 homes available for purchase
- 263 homes available for rent

**7,248 units**



Permits Issued  
Closings

35% increase in permits, 2000-2004

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## Significant Water Resources Available in the El Paso Region...




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## Surge Capacity in El Paso Schools...

ISD	Capacity
El Paso ISD	12,162
Ysleta ISD	7,482
Socorro ISD	7,380
<b>Total Excess Capacity</b>	<b>27,024</b>

**27,024  
Available  
Seats \***

\* 3 largest school districts

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## Investing in the future....

**\$645 million in bonds  
for public schools,  
approved by voters**

**2003 / 2004  
(EPISD, SISD, YISD)**

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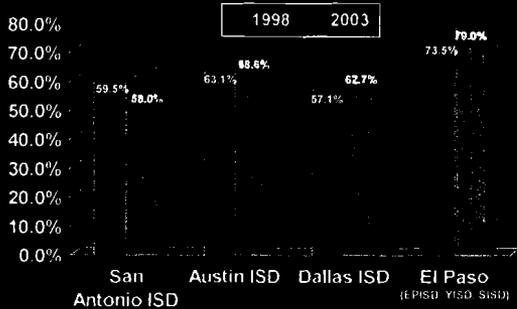
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## El Paso leads Texas urban areas in HS completion rates...



Source: Texas Education Agency, 2004 Report on the Education of All Children

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## Math and Science Achievement

- El Paso Collaborative for Academic Excellence

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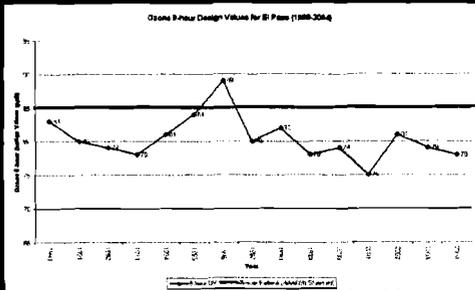
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## El Paso now "in attainment" for Ozone ( $O_3$ )



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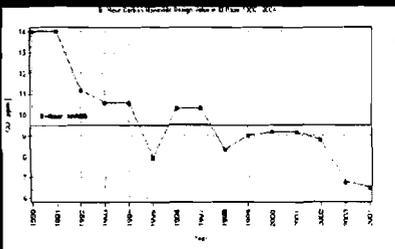
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## El Paso meets NAAQS standards for carbon monoxide emissions...



TCEQ plans to petition EPA in July 2005, to achieve official "in attainment" status

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## **PM<sup>10</sup> Non-Attainment Status In Dispute**

The City limits of El Paso, but not including the main post of Fort Bliss, is listed as non-attainment for PM<sub>10</sub> per NAAQS.

Currently two different types of PM<sub>10</sub> monitoring equipment is used in the El Paso area.

Data from the first technology indicates that El Paso is currently in attainment.

Data from the second technology indicates that El Paso is monitoring non-attainment for the PM<sub>10</sub> standard.

TCEQ research has shown a consistent bias between these two types of monitoring technology across Texas and other states in EPA Region 9.

The reason for this bias has been traced to a possible design flaw in the inlet portion of the second monitoring technology.

TCEQ is working with the EPA to resolve this technical issue.

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## **Now lets talk about Army transformation and networked fires . . .**

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**The Air Defense Artillery School and Center can best contribute to "Army Transformation" and "Networked Fires" in the environment provided by Ft Bliss / WSMR / Holloman AFB.**

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**World's largest joint maneuver battle space . . .**

**Geographic Comparison**

- Albuquerque, NM
- Trenton, NJ
- Philadelphia, PA
- Baltimore, MD
- Washington, DC

- 35 miles
- 103 miles
- 45 miles

- Largest DoD-controlled air & ground space in the world
- 1 million acre joint maneuver area at Ft Bliss alone
- Ranges accommodate all Army weapon systems

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**Fort Bliss / WSMR Land Area**

- Fort Polk
- Fort Irwin (NTC)
- Fort Hood
- Fort Jackson
- Carlisle Barracks
- Fort Gordon
- Fort Monroe
- Fort Huachuca
- Fort Eustis
- Fort Sill
- Fort Leavenworth
- Fort Knox
- Fort Lee
- Fort Rucker
- Presidio
- Fort Benning
- Fort Story
- Fort Leonard Wood

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**Why Fort Bliss / WSMR / HAFB?**

- Complex can accommodate live firing and radiation of all FA and ADA systems
- Bliss/WSMR/HAFB range complex provides a Joint and Combined fires and maneuver environment
- The ranges allow true geographic separation of forces that stress Networked communications and connectivity
- The recommended addition of Fires and Aviation Bdes enhances Net Fires concept at Ft Bliss

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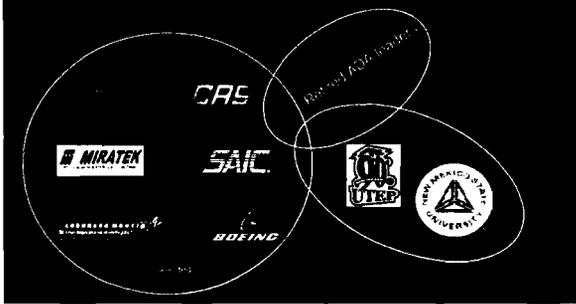
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**El Paso's Intellectual Capital Supports Transformational Concepts...  
And This Capital is Growing**




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**Regional higher education supports high tech development ....**



- 600 annual engineering grads from UTEP and NMSU
- 600 biologists, chemists, and other scientists graduates annually from UTEP and NMSU

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**Criteria Seven Evaluation Tool**

RISK EVALUATION

	Low Risk 1-3	Medium Risk 4-6	High Risk 7-9
Climate Change	1	1	Sustain
Transportation	1	1	Sustain

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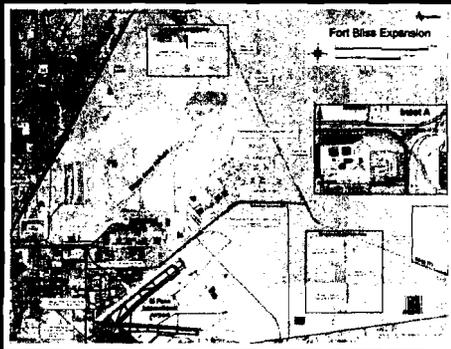
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## Documented capacity for 3 divisions in addition to USAADAC...




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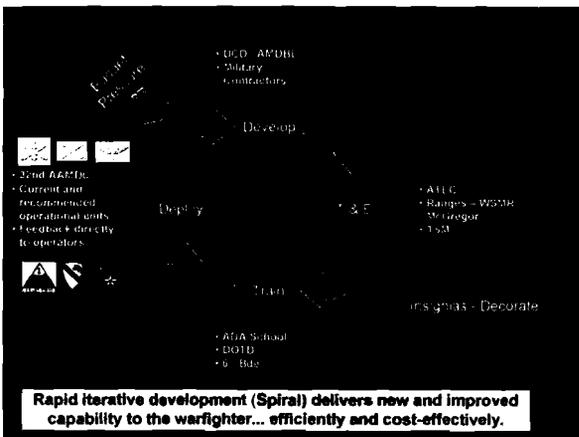
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Future networked fires environment will be characterized by rapid iterative development process providing new and improved capabilities. ADA has demonstrated its ability to do this via C-RAV and RAID.

Bliss provides best location to develop and field new capabilities by collocation of development (OCD), test (ATEC and McGregor/WSMR ranges), train (ADA School and ADA Bdes) and deploy (32nd AAMDC, recommended BC1s, and recommended FA and Aviation Bdes).

Ft. Bliss provides access to world's largest truly Joint and Combined Battlespace Training range. Ranges permit maneuver and firing of all ADA and FA weapons.

Region has been selected by Army and LSI to conduct integrated field testing of FCS, and by Air Force for JUCAS, providing systems integration opportunities.

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## **Ft. Bliss / El Paso... A National Treasure**

- Unsurpassed Testing and Evaluation Capability
- Joint, Interagency, Multi-national
- Massive Air and Ground Space
- Long and Growing History in AMD Concept Development
- Superb Location for Integration of Systems
- Supports Diverse Fires
- Live, virtual and constructive training (JNTC Persistent Site)
- Enhanced relationships with coalition forces
- Supportive community for joint, combined and transformational concepts

The premier location to meet our nation's joint  
and combined needs.

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First To Fire !!!



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## **Fact Issues**

1. Air space for the combined installation of Ft Bliss/WSMR/HAFB is DoD-controlled from "mud to space"
2. Current air quality data- El Paso is "in attainment" for at least two of three emissions cited in BRAC report
3. Housing capacity- historical, current, and projected
4. Water supply will support significant growth
5. Public schools have surge capacity and are building more
6. Question power projection analysis- Ft Bliss is state of the art
7. Cost comparisons between Ft Bliss and Ft Sill

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## Military Value

- Overall Military Value
- Military Value
- Overall Military Value

Overall Military Value

	Fort Bliss	Fort Hood
	#1	#19

Overall Military Value

## Background Slides

### Top Three Installations Overall Military Value

#1 Fort Bliss ..... 6.25

#2 Fort Lewis ..... 5.76

#3 Fort Hood ..... 5.70

## Housing Background

- 5,200 apartment units, available for rent, many with a common fire, soldiers facing rapid deployment
- Apartment Association contemplates policies to provide temporary housing when soldiers are living quarters on base

460-acre residential development planned for Northport LP Northport master plan, which outlines development of about 5,800 acres owned by the city. 1,000 - 1,500 new units

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Future networked fires environment will be characterized by rapid iterative development process providing new and improved capabilities. ADA has demonstrated its ability to do this via C-RAM and RAID.

Bliss provides best location to develop and field new capabilities by collocation of development (DCD), test, (ATEC and McGregor/WSMR ranges), train (ADA School and ADA Bdes) and deploy (32nd AAMDC; recommended BCTs; and recommended FA and Aviation Bdes).

Ft. Bliss provides access to world's largest truly Joint and Combined Battlespace Training range. Ranges permit maneuver and firing of all ADA and FA weapons

Region has been selected by Army and LSI to conduct integrated field testing of FCS, and by Air Force for JUCAS, providing systems integration opportunities

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## Engineering & Computer Science Graduates

- In 2003, 325 UTEP students earned degrees in Engineering and Computer Science
  - BS degrees: 271
  - MS degrees: 37
  - Ph.D. degrees: 17
- NMSU had 303 graduates in the same areas
  - BS degrees: 270
  - MS degrees: 28
  - Ph.D. degrees: 5
- UTEP's College of Engineering consistently ranks as one of the top 5 schools in the continental U.S. in awarding BS degrees to Hispanics (No. 1 in 2001; No. 2 in 2003). <http://www.utep.edu/~engr/engr.htm>

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*Research Concentrations*

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# El Paso Water Utilities

## Northeast El Paso Master Plan

### EXECUTIVE SUMMARY



*Prepared by:*

Kimley-Horn and Associates, Inc.  
12700 Park Central Drive, Suite 1800  
Dallas, Texas 75251  
Phone: 972-770-1300  
Fax: 972-239-3820



Kimley-Horn  
and Associates, Inc.

## INTRODUCTION

In August, 2003 the El Paso Water Utilities Public Service Board (PSB) authorized Kimley-Horn & Associates (KHA) to Master Plan their property located in northeast El Paso to comply with the PSB rules and regulations, which establishes that land sales greater than 50 acres shall be master planned. The objective of the master plan is to protect and enhance the value of the PSB land by proposing responsible growth and to maximize the potential of the PSB properties.

The northeast master plan proposes a general plan for the development of the property including the layout of arterial streets, open areas, sites for public facilities and utilities. The plan studies the available and required infrastructure required to sustain the proposed community. Drainage, water and sanitary sewer service, reclaimed water distribution, transportation and land use distribution were carefully studied in the process of developing the master plan.

## PROPERTY DESCRIPTION

The Northeast Master Plan focuses on the PSB properties bounded by the Franklin Mountains on the west, S.H. 54 on the South-East, and the Texas-New Mexico state line on the North. The total area of the land is approximately 16,000 acres.

The master planned property is mostly vacant land with the North Hills subdivision being the major development within the boundaries described above. Other industrial facilities are located within the boundaries of the property such as the El Paso Electric Company Newman power plant, El Paso Natural Gas plant, the El Paso Solid Waste McCombs landfill and a quarry. The Painted Dunes Golf Course is located north of S.H. 54 neighboring the PSB properties making it a prospect for the planning of a retirement/resort community around the facility.

The existing projected land use plan from the City of El Paso Planning Department includes mostly open space with a large corridor of industrial use and large "pods" of residential use of 1,000-2,000 acres. Portions of mixed use and a few small commercial pads of 10 acres or less are included.

## MASTER PLAN DEVELOPMENT

In order to plan for the future, it was necessary to acknowledge the existing conditions of the land and available infrastructure. A full report was produced to establish the existing conditions. (See Existing conditions report by KHA, November 2003). Public input from neighborhood committees and public agencies was an integral part for the development of the Master Plan. Several meetings were held with stakeholders in public facilities (*NE Command Center 12/03*) and additional presentations were given to specific community groups and public agencies. (*The City of El Paso and Steering Committee 9/03, The Texas Parks and Wildlife 01/04, The Home Builders Association 1/04*)

Five master plan concepts were developed by the consultant team with the objective of including, to the extent possible, all stakeholder input. The scope of work originally called for three (3) concepts that eventually evolved into two (2) more concepts and the final being an iteration of all the concepts. Two presentations were given to the PSB for approval (*12/03 and 05/04*). Other presentations of the final Master Plan were given to stakeholders and public agencies and the recommended plan (Modified Alternative E) was approved by the PSB on June 9, 2004.

## FINAL MASTER PLAN DESCRIPTION

The final Master Plan incorporates various planning models. It introduces new urbanism and encourages smart growth. It incorporates a curvilinear arterial system with a semi-grid arterial system to maintain connectivity and transition from the existing developments.

A Town center with ±850 acres of commercial, mixed-use and high density residential was incorporated to centralize the commercial activity to create a “place” where people can interact and major community activities can occur. The Town Center exploits the economic potential of a community as large as Northeast El Paso.

The curvilinear arterial layout allows the creation of super-pods (700-1000 acres), which leads to the creation of unique residential developments. The curvilinear arterial layout caused the revision of previously planned alignments of roadways such as McCombs Road and the Northeast Parkway. The alignments proposed by this plan for these roadways have not been approved by the City of El Paso or by the Texas Department of Transportation (TxDOT), although TxDOT is currently in the schematic development phase of the Northeast Parkway. The effect of unknown alignments of major arterials through the site may slightly alter proposed land uses. Other arterials for which this plan proposes modifications to the alignment will be under the jurisdiction and review of the City of El Paso. The City will require a request to update its Master Thoroughfare Plan (MTP) in order for the alignments of these arterials to be changed prior to development. Schools and parks were planned next to each other to enhance the City/School Districts (El Paso and Ysleta) resources and create community gathering places.

Some industrial use was required to be incorporated to create a transition from the existing industrial facilities to other types of uses, maximize the potential of the proposed Northeast Parkway and house the existing land fill. The construction of the Northeast Parkway will attract more industrial-type traffic to the PSB property, thus industrial land use was designated along the future freeway to better use the facility and the available land. Additionally a retirement community/resort was proposed adjacent to the Painted Dunes Golf course with the intention of attracting military retirees. The retirement community/resort is intended to provide a contained residentially designated area which would include amenities for residents (golf course), fulfill immediate commercial needs through the incorporation of a small amount of commercially designated areas, and a school to serve the community. This area contains approximately 1,231 acres. See Table 1.

The Master Plan is divided into two (2) phases of development. The first phase (Phase 1) comprised of ±5,000 acres, with residential, mixed-use and commercial uses, is the southern portion of the property. The second phase (Phase 2) being ±11,000 acres, with industrial, mixed-use and residential uses is the northern remaining portion of the property. See attached exhibit for reference.

Phase 1 is planned in sub-phases of probable development with a full development horizon of approximately 30 years. The master plan, with the two phases will be submitted to the City of El Paso as an amendment request for the City’s Comprehensive Plan (Plan for El Paso). Phase 1 will be submitted as a Land Study.

**FINAL MASTER PLAN FACTS**

Final Land Use distribution is shown in Table 1.1.

**TABLE 1. Land Use Distribution.**

LAND USE	PHASE 1 (Acres)	PHASE 2 (Acres)	PAINTED DUNES COMMUNITY (Acres)	TOTAL (Acres)
COMMERCIAL	397	685	34	1,082
INDUSTRIAL	-	1,217	-	1,217
MIXED USE-RETAIL	245	270	-	515
MIXED USE-OFFICE	505	718	-	1,223
PUBLIC USE	6	12	-	18
PARKS	286	236	10	522
NTB	963	610	-	1,573
HIGH DENSITY RESIDENTIAL*	601	795	91	1,396
MEDIUM DENSITY RESIDENTIAL*	1,047	3,324	684	4,371
LOW DENSITY RESIDENTIAL	653	1,474	-	2,127
SCHOOL	176	255	15	431
PAINTED DUNES GOLF COURSE	-	305	305	305
INFRASTRUCTURE (R.O.W.)	301	884	-	1,185
<b>TOTAL</b>	<b>5,180</b>	<b>10,785</b>	<b>1,139</b>	<b>15,965</b>

\* Neighborhood Commercial areas are included in High and Medium density residential areas.

For Storm Drainage Management it is proposed, in this Master Plan, to include improvements to mitigate/control the storm runoff generated within the study property. A combination of channels, culverts and detention facilities is proposed throughout the study area.

After exploring several alternatives for drainage control, an option was selected that will strategically control storm run-off from phase 1 and 2 without incurring in too much infrastructure construction and maximizing the existing infrastructure. The Drainage Master plan focuses only on phase 1 and proposes to include the infrastructure necessary to control the runoff that will be generated in the future from phase 2. The storm model generated for this study was based on the assumption of ultimate build out condition. Refer to Northeast Master Plan final report for details.

**TABLE 2. Master Drainage Estimated Projected Costs.**

STUDY	FLOOD CONTROL	LAND VALUE	TOTAL
PREVIOUS CLOMR	\$ 54,566,221	\$ 5,820,000	\$ 60,386,221
NE MASTER PLAN	\$ 35,645,731	\$ 1,940,000	\$ 37,585,731

One important portion of the Master Plan involves the study of the Transportation/Traffic impacts the master plan may have on existing and future traffic. The master plan proposes a series of arterials ranging from Super Arterials to Collectors. However, a Traffic Impact Analysis to determine the feasibility of the proposed roadway system was not part of the scope of the Master Plan. A future TIA will be required to validate the proposed transportation system. Table 3 shows the estimated costs of the proposed roadway system for Phase 1. Table 4 shows the total estimated projected costs for Phase 1 and Phase 2 combined.

**TABLE 3. Proposed Transportation Infrastructure & Projected Total Costs (Phase 1).**

DESCRIPTION	ROADWAY TYPE	NUMBER OF LANES	R.O.W. WIDTH	LINEAR FEET OF ALIGNMENT	COST PER LINEAR FEET		LF COST LOW	LF COST HIGH
					Low	High		
Total Super Arterial Street with Bike Lanes	Super Arterial	8	146	22,596	\$ 700.00	\$ 900.00	\$ 15,817,200.00	\$ 20,336,400.00
Total Major Arterial Street	Major Arterial	6	110	9,393	\$ 525.00	\$ 650.00	\$ 4,931,325.00	\$ 6,105,450.00
Total Minor Arterial Street	Minor Arterial	4	76	52,560	\$ 325.00	\$ 425.00	\$ 17,081,980.50	\$ 22,337,974.50
Total Collector Street	Collector	4	64	79,576	\$ 225.00	\$ 325.00	\$ 18,132,325.25	\$ 25,862,164.25
Totals				164,125			\$ 55,962,830.75	\$ 74,641,988.75

**TABLE 4. Proposed Transportation Infrastructure & Projected Total Costs (Ph 1&2)**

DESCRIPTION	ROADWAY TYPE	NUMBER OF LANES	R.O.W. WIDTH	LINEAR FEET OF ALIGNMENT	COST PER LINEAR FEET		LINEAR FOOT COST LOW	LINEAR FOOT COST HIGH
					Low	High		
Total Super Arterial Street with Bike Lanes	Super Arterial	8	146	43,359	\$ 700.00	\$ 900.00	\$ 30,351,300.00	\$ 39,023,100.00
Total Major Arterial Street	Major Arterial	6	110	24,968	\$ 525.00	\$ 650.00	\$ 13,108,026.75	\$ 16,228,985.50
Total Minor Arterial Street	Minor Arterial	4	76	83,677	\$ 325.00	\$ 425.00	\$ 27,195,125.75	\$ 35,562,856.75
Total Collector Street	Collector	4	64	176,441	\$ 225.00	\$ 325.00	\$ 39,927,017.75	\$ 57,343,386.75
Totals				328,445			\$ 110,581,470.25	\$ 148,158,329.00

The water distribution and waste water collection infrastructure and facilities were master planned based on the phasing plan. Booster stations, reservoirs and distribution mains would be required as soon as development starts occurring. Lift stations, and collection mains would be required as land is being developed. Table 5 shows the estimated total cost of public utilities infrastructure required for each phase and for the total development of the Master Plan.

**TABLE 5. Proposed Public Utilities Projected Costs.**

DESCRIPTION	PHASE 1	PHASE 2	TOTAL
WATER SYSTEM	4,600,000	4,700,000	9,300,000
WASTEWATER SYSTEM	18,500,000	16,200,000	34,600,000
RECLAIMED WATER SYSTEMS	15,000,000	12,800,000	27,800,000
<b>TOTAL</b>	<b>38,100,000</b>	<b>33,700,000</b>	<b>71,700,000</b>

The future potential population was calculated for the Master Plan. Various population projection models were used. The ultimate population growth is solely dependent on the PSB selling property for development and the City of El Paso allowed development standards. Table 6 shows the maximum projected population.

**TABLE 6. Maximum Total Population Projection.**

RESIDENTIAL POPULATION	ACRES	DEVELOPMENT NET	MAXIMUM DENSITY	PERSONS PER HOUSEHOLD	NUMBER OF UNITS	BUILD-OUT POPULATION
LOW DENSITY RES.	2,128	0.75	4	3.5	6,384	22,344
MEDIUM DENSITY RES.	4,372	0.8	8	3.5	27,981	97,933
HIGH DENSITY RES.	1,396	0.8	20	3.5	22,336	78,176
TOWN CENTER RES. URBAN DENSITY	515	0.2	12	1.5	1,236	1,854
TOWN CENTER RES. HIGH DENSITY	515	0.3	30	1.5	4,635	6,953
<b>TOTAL</b>	<b>8,411</b>				<b>62,572</b>	<b>207,259</b>

## CONCLUSION

The Master Plan proposes to maximize the use of land and create a sustainable community, capable of phased growth. The Master Plan incorporates various planning concepts including new urbanism (via the concept of a town center and mix of uses), curvilinear arterial systems, a retirement community/resort, as well as the reservation of parks and school sites, open spaces and creative access to state park facilities. The idea of the proposed master plan is to create a community, a place where people can identify themselves and their place with the location and attributes surrounding them. The master plan's intent is to create a place where people can interact and enjoy the feeling of community.

The northeast master plan provides the means for responsible development protecting the value of the PSB land. It is projected that Phase 1 will be developed  $\pm 30$  years after the first land sale occurs. The total master plan build-out projection is  $\pm 60$  years with a maximum population of 207,000 people.

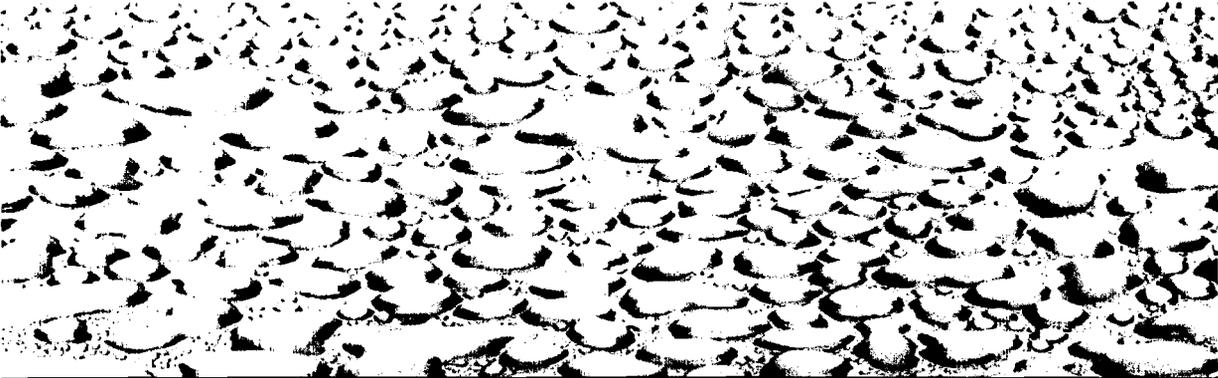




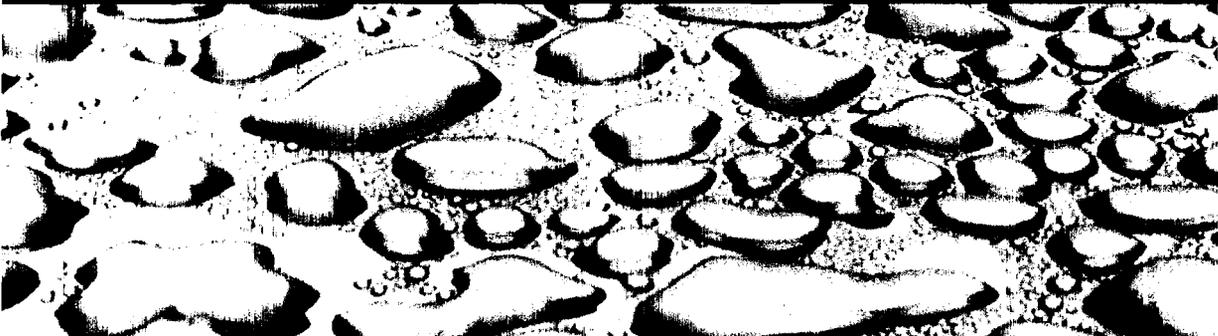
Selected Water Slides

EPWU's Water Plans & Programs

June 2005

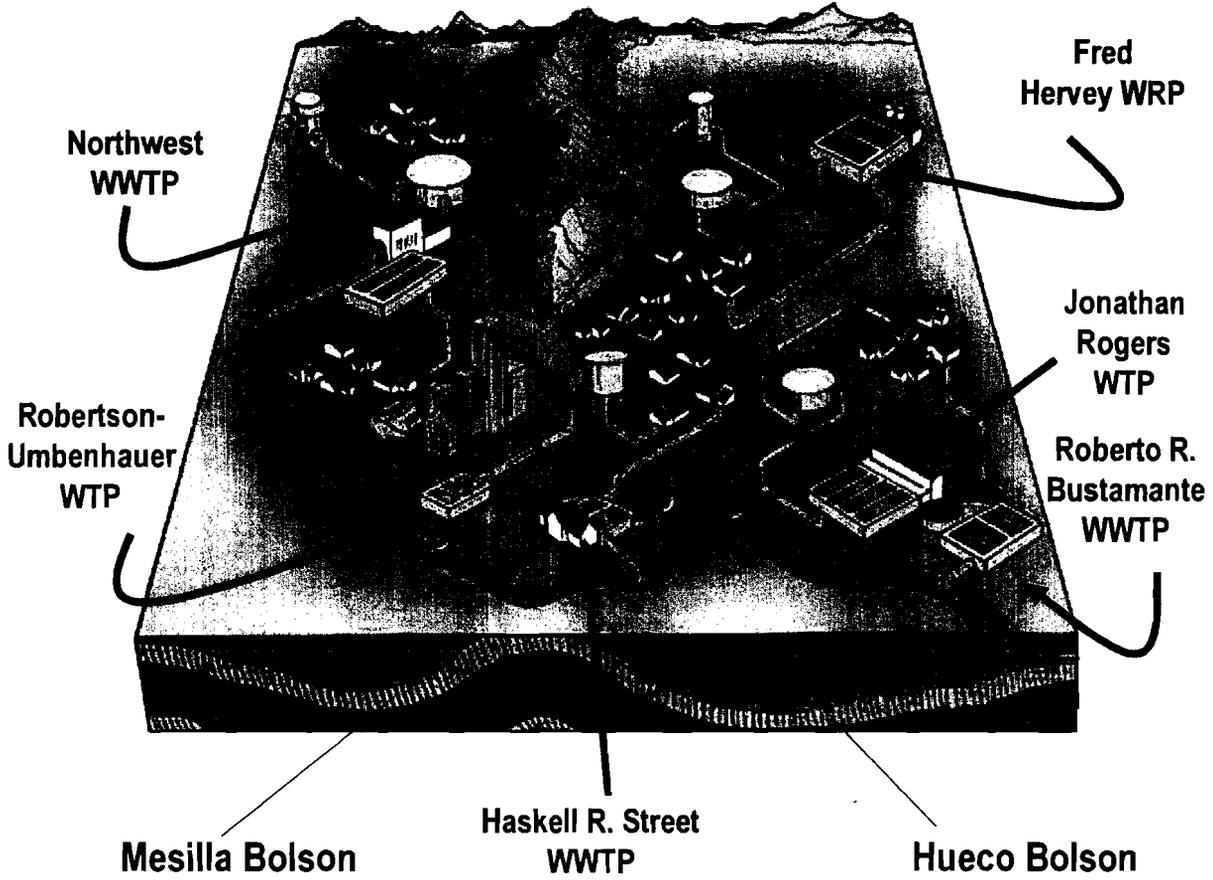


## Service Area/Existing Facilities



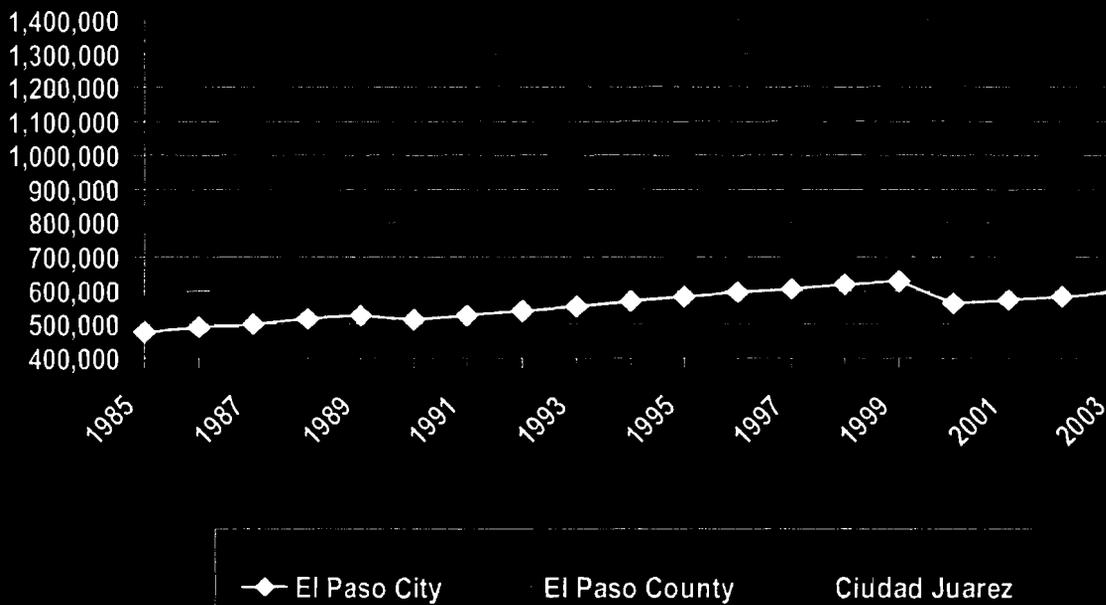
## EPWU Current Retail and Wholesale Customers





# System Growth and Demands

# Population Growth



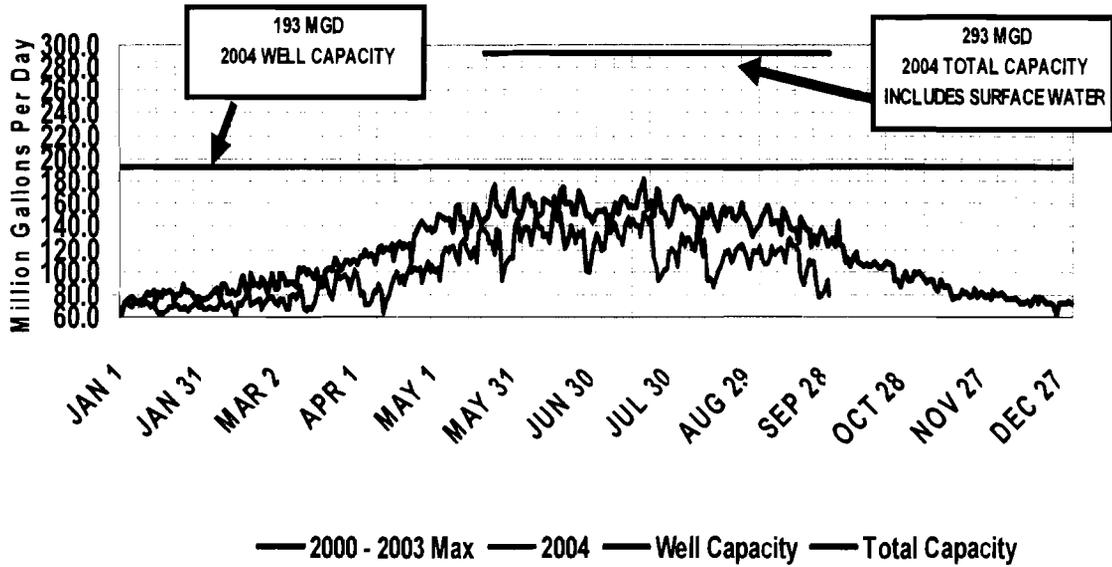
# Customer Account Growth



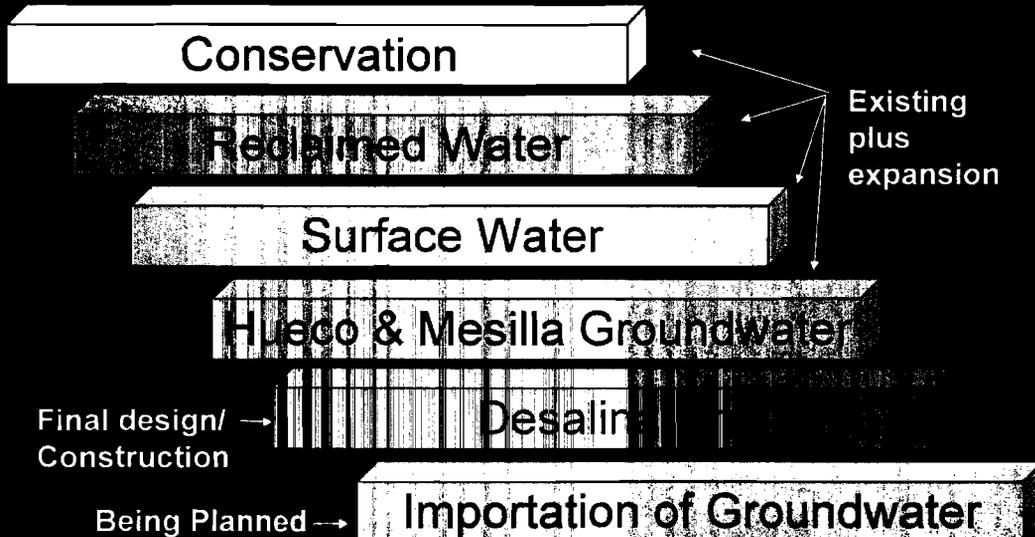
# EL PASO WATER UTILITIES

## 2000 - 2003 MAX Versus 2004 PEAK DAY DEMAND

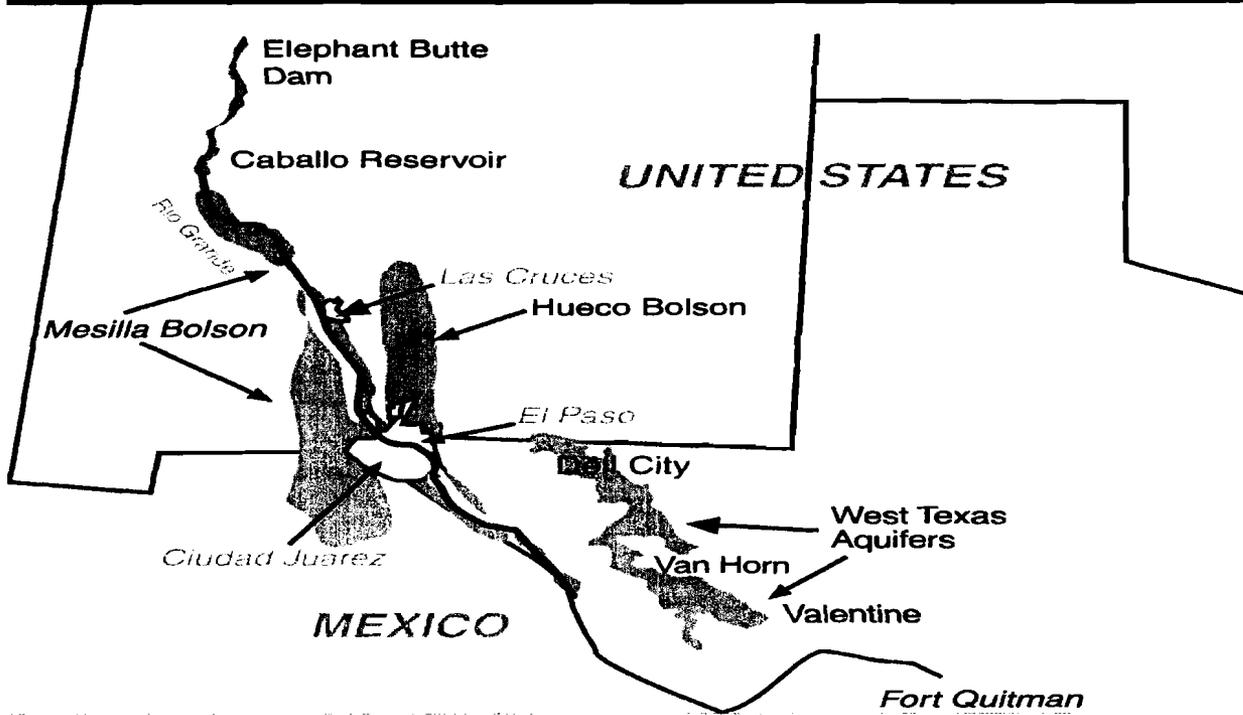
### DEMAND



## El Paso's Priorities for Additional Water Supply



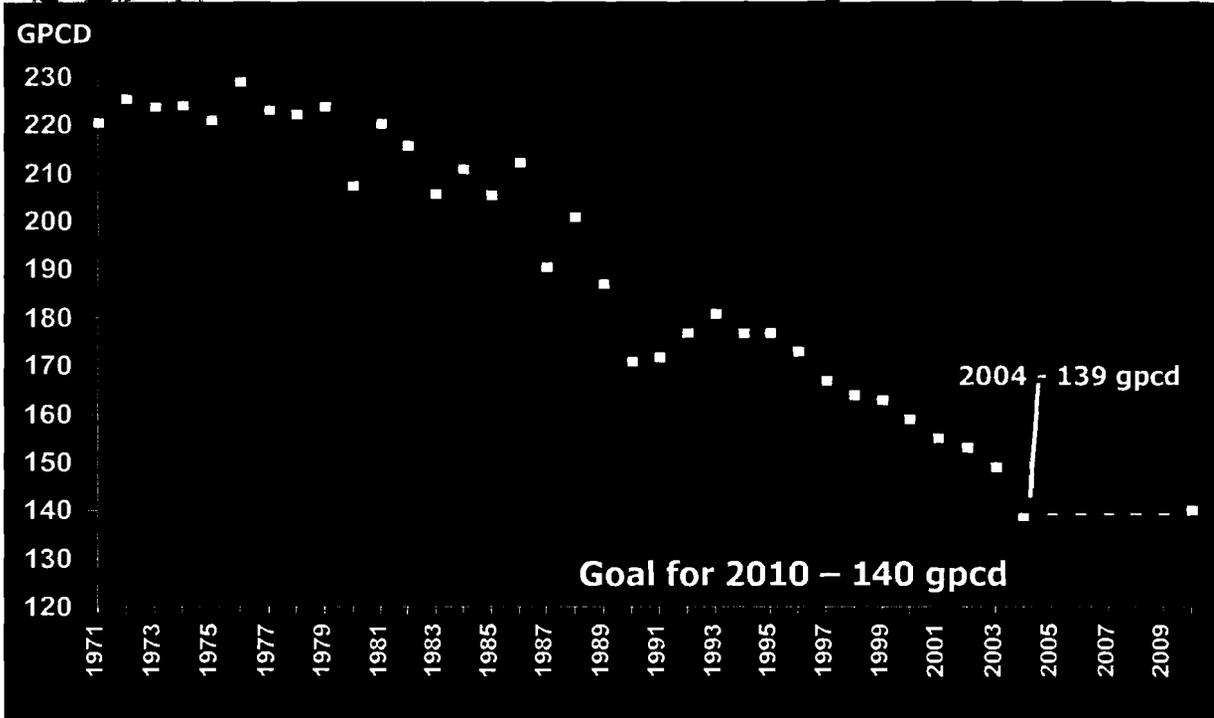
# Water Resources Available to the El Paso/Cd. Juárez/Las Cruces Region



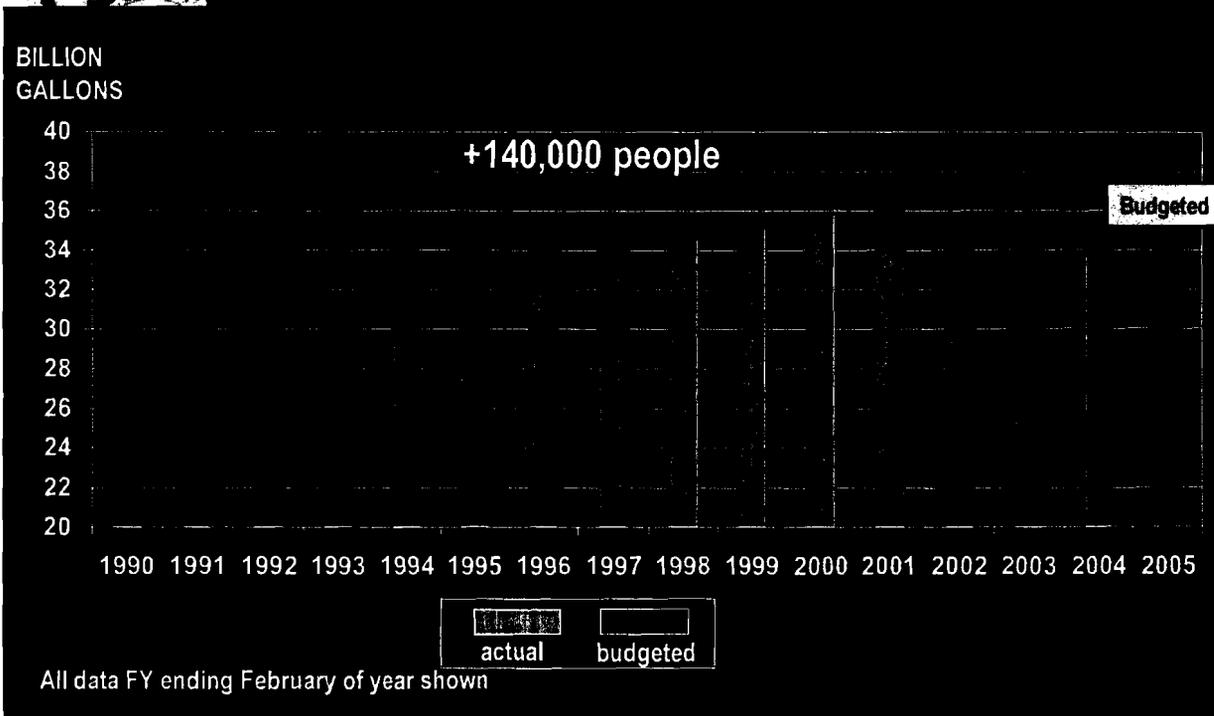
## Conservation



# Gallons Used Per Person Per Day



# Billed Water





# Rebate Programs

## “Cash for your Commode”

To date, the replacement of 43,000 toilets saves an estimated 350 million gal./yr. of water & wastewater

## Refrigerated Air Rebate

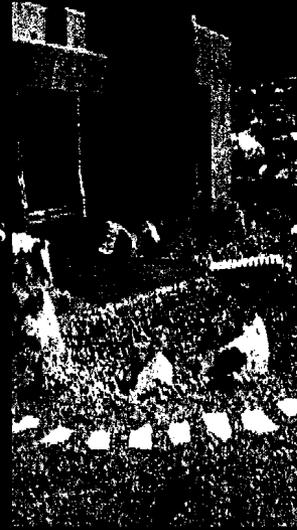
To date, the 3,600 rebates issued represents a savings of 63 million gal./yr. of water

## Horizontal Washing Machine Rebate

To date, the 4,500 rebates issued equals a savings of 36 million gal/yr. water

## Turf Rebate Program

To date, rebates on 160 acres of removed turf is equivalent to saving over 282 million gal./yr. of water



# Rebate Programs Cont.

- **Free showerhead program**  
The distribution of more than 220,000 low-flow showerheads to EPWU customers saves 1 billion gallons of water and wastewater annually
- **Evaporative Bleed-off Line Clamps**  
To date, 120,000 bleed-off line clamps have been given out

**FREE Low-Flow Showerheads**

If you're a customer of the City of Denver, you can get a free low-flow showerhead. This is a great way to save water and money. The City of Denver is giving away 220,000 low-flow showerheads to its customers. You can get one for free. To get one, call 311 or visit the City of Denver website. The showerheads are being given away until they are gone.

**April 15, 2000, 9 a.m.—2 p.m.**  
The City of Denver is giving away 220,000 low-flow showerheads to its customers. You can get one for free. To get one, call 311 or visit the City of Denver website. The showerheads are being given away until they are gone.

**April 22, 2000, 9 a.m.—2 p.m.**  
The City of Denver is giving away 220,000 low-flow showerheads to its customers. You can get one for free. To get one, call 311 or visit the City of Denver website. The showerheads are being given away until they are gone.

**April 29, 2000, 9 a.m.—2 p.m.**  
The City of Denver is giving away 220,000 low-flow showerheads to its customers. You can get one for free. To get one, call 311 or visit the City of Denver website. The showerheads are being given away until they are gone.

**Evaporative Bleed-off Line Clamps**

To get your free evaporative bleed-off line clamp, call 311 or visit the City of Denver website. The clamps are being given away until they are gone.

**SAVE THE TOP PART OF YOUR BILL**

Special Savings & Rebates

Call now to get yours for your 2000 apartment!

Evaporative bleed-off line clamps are being given away until they are gone.

**Call Now**

**4 Billion Gallons of Water Per Year**



## Waterless Urinals

- To date, more than 100 units have been installed at area school district and city offices
- Each urinal saves approximately 40,000 gallons per year



## New Conservation Initiatives

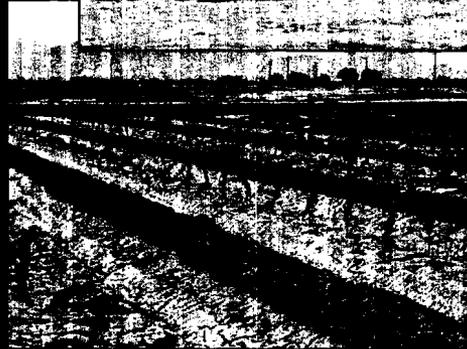
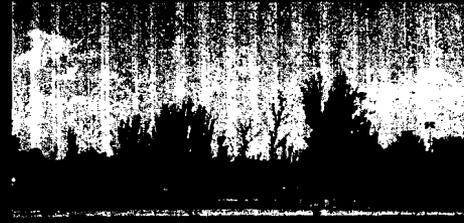
- Hot water on demand
  - A \$100 rebate per pump installed
  - Potential savings 10,000 gallons per home
- Subsurface Irrigation
  - Zach White Elementary School Pilot Program





# Public Outreach Initiatives

- Billboards – Green Sweep
- City Tree Farm
- Subsurface Irrigation Pilot Program

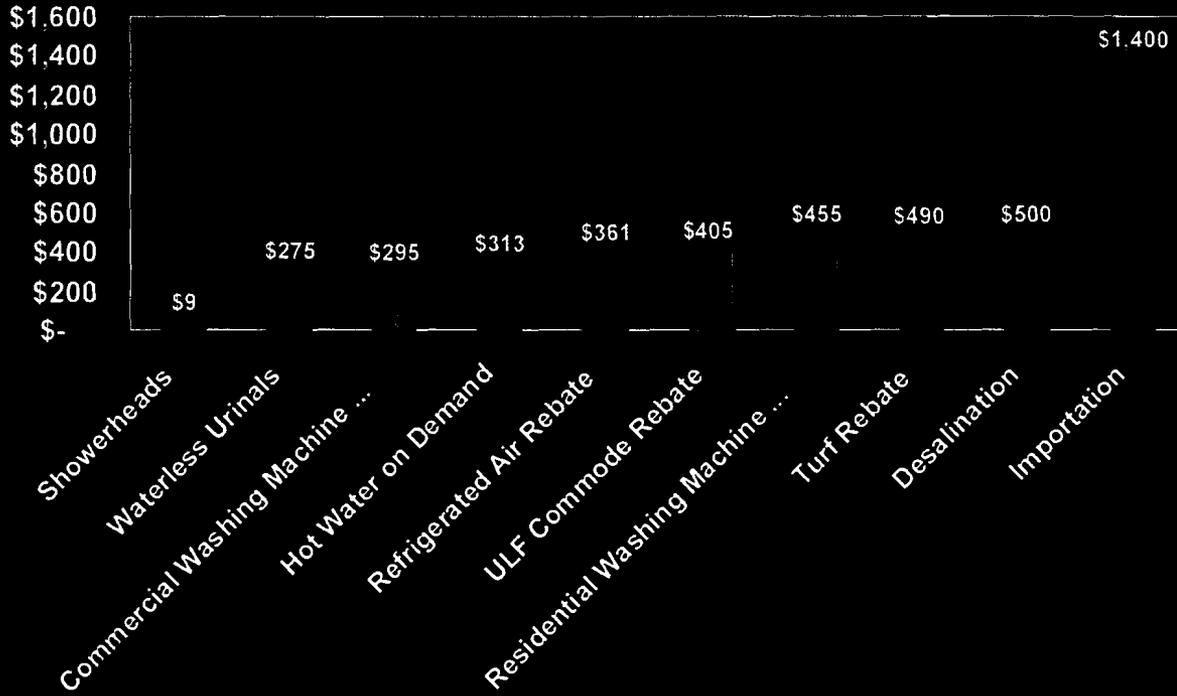


# 2004 Water Savings

- These conservation programs saved an estimated 245 million gallons annually
- This is equivalent to serving 2,275 new homes



# Cost per Acre-foot Comparison



## Reclaimed Water





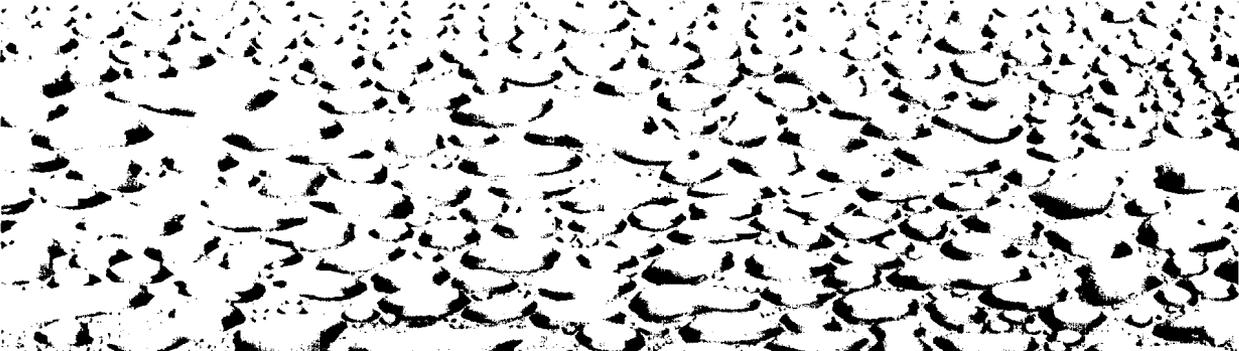
## Reclaimed Water

- Reclaimed Water is highly treated wastewater that is suitable for non-potable uses such as for irrigation and industrial use.
- Reclaimed water is regulated by the State of Texas and the EPWU.
- Reclaimed Water is Not Gray Water. Gray water is untreated water from the laundry machine, sinks, and showers.
- Reclaimed water is sustainable and:
  - Saves potable water
  - Is drought resistant – watering
  - Has a lower water rate
  - Adds nutrients to landscaping
  - Reduces peak water demand



## Reclaimed Water Cont.

- Currently, EPWU reclaims 3.4 billion gallons per year or 9% of water production
- 2012 goal — to recycle 7.0 billion gallons per year (15% of projected annual water demand)



# Groundwater Analysis



## Brief History

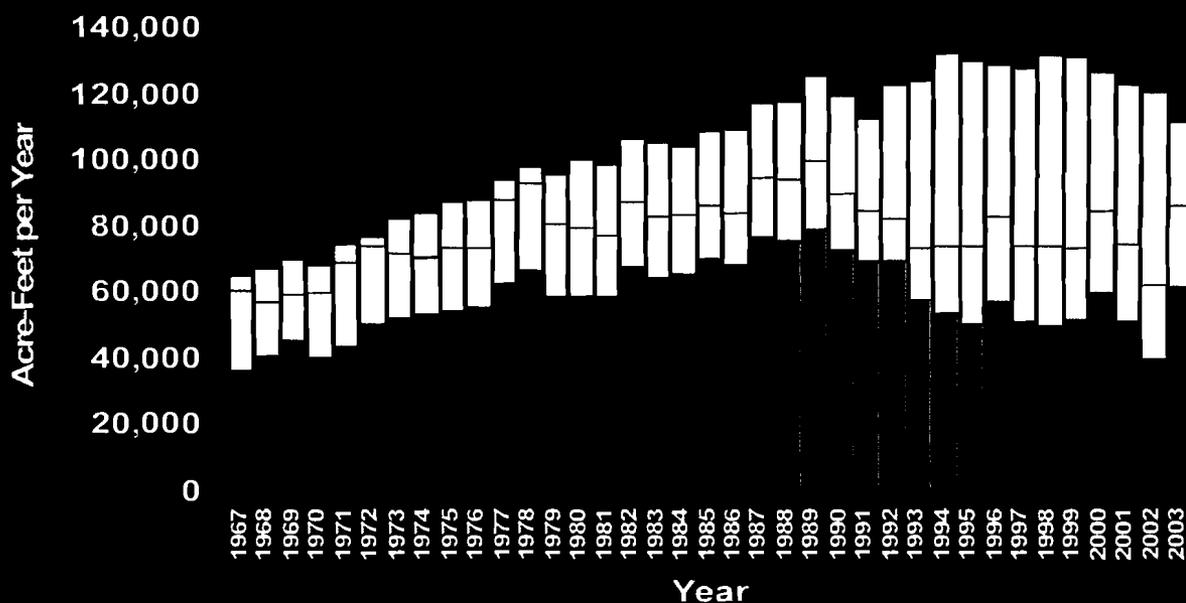
- 1904 – First Mesa well constructed
- 1921 – First recognition of declining groundwater levels
- 1956 – First description of interaction of Rio Grande as recharge source
- 1976 – USGS Model (Mayer) published
- 1979 – TWDB published assessment of groundwater availability for all major aquifers in Texas
- 1991 – 50 year Water Resource Management Plan (Boyle)
- 1995 – Partnered with USGS for new model
- 1998 – Hueco Bolson designated as a Priority Groundwater Management Area by TCEQ

# Hueco Bolson

~ 1.6 million acres  
~ 2,500 sq. mi.



## EPWU Supply



Hueco ■ Mesilla ■ Rio Grande



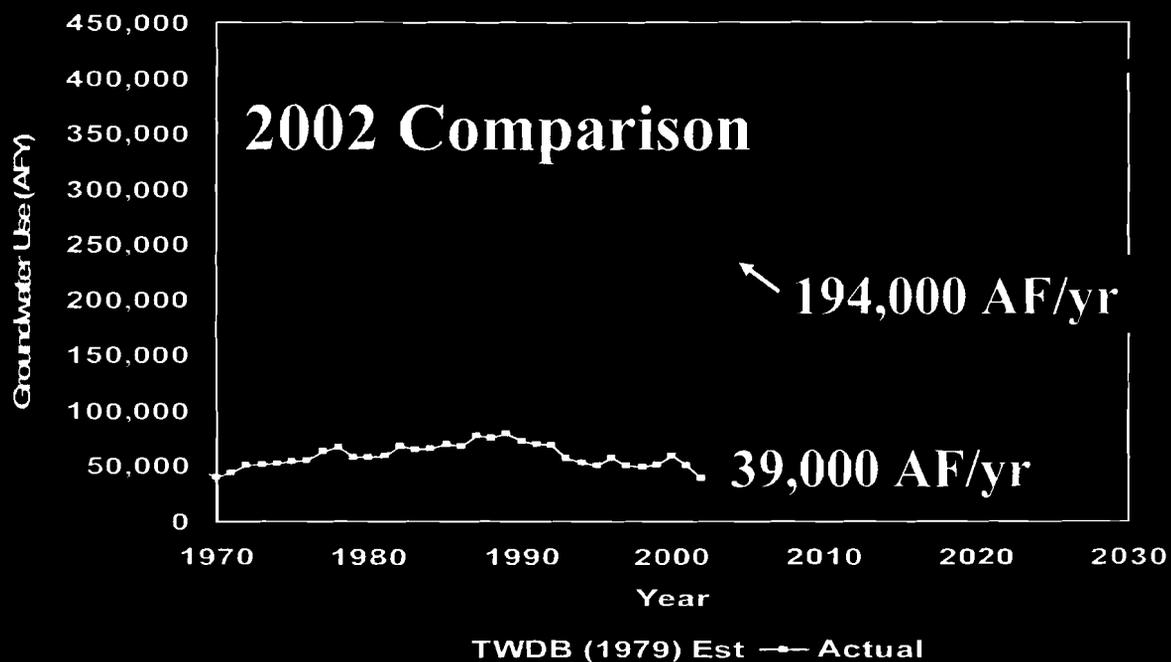
# Summary of Key Findings

In 1989, EPWU reduced Hueco pumping, resulting in a “nearly sustainable” supply of water and reversing the conclusion reached in 1979 of the depletion of fresh groundwater by 2030 by:

- Increased surface water use
- Rate structure changes
- Conservation
- Public education and awareness
- Increased reclaimed water use



## EWPU Hueco Groundwater Pumping





## Key Assumptions: “Nearly Sustainable Supply” for El Paso Portion of Hueco

- EPWU pumping:
  - 40,000 AF/yr in “normal” years
  - 75,000 AF/yr in drought years
- Juarez pumping: 120,000 AF/yr
- Assume 10 year drought every 50 years
- Assume 40K/75K pumping in El Paso
- Assume 120K pumping in Juarez
- Assume Joint Desalination Facility



## Future Fresh Groundwater Storage Decline

- Average storage decline = 22,000 AF/yr
- Attribute all storage decline to fresh groundwater area
- After 100 years:
  - 75% of 2002 fresh groundwater storage remains
  - “Near sustainability”

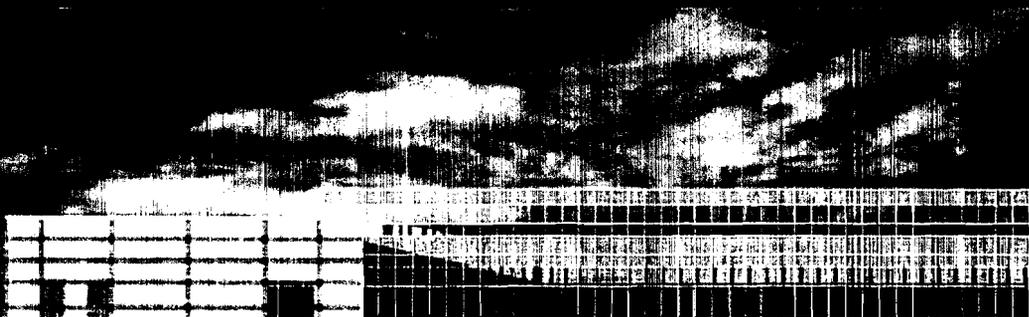


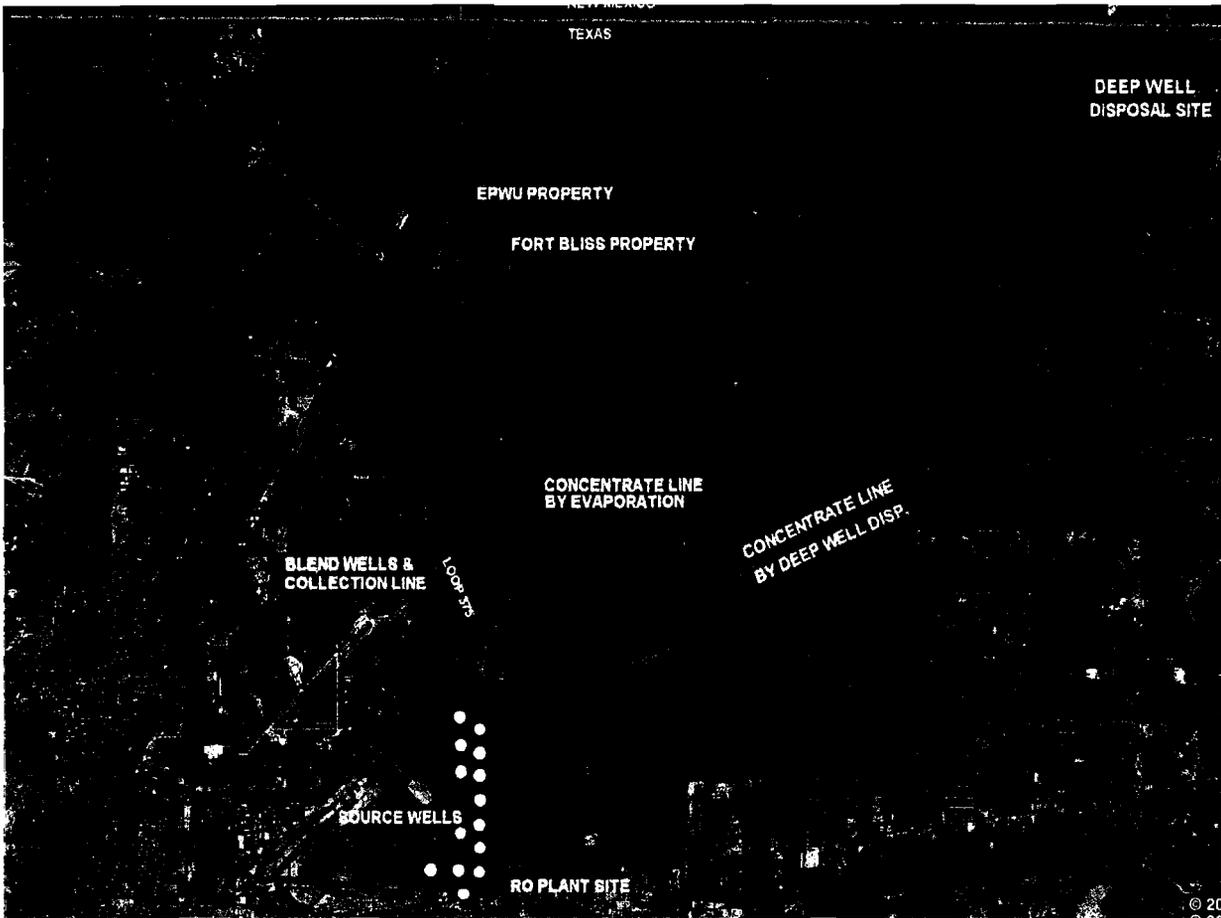
# Conclusions: Past & Present

- Major PSB water planning and policy implementation have improved conditions in Hueco
- Pumping reductions stabilized groundwater levels in many areas
- Improved data and analytical tools have provided PSB better information about Hueco
  - Juarez will not “run out of fresh water” in 5 years
  - EPWU will not “run out of fresh water” in 2030



## Desalination Facility



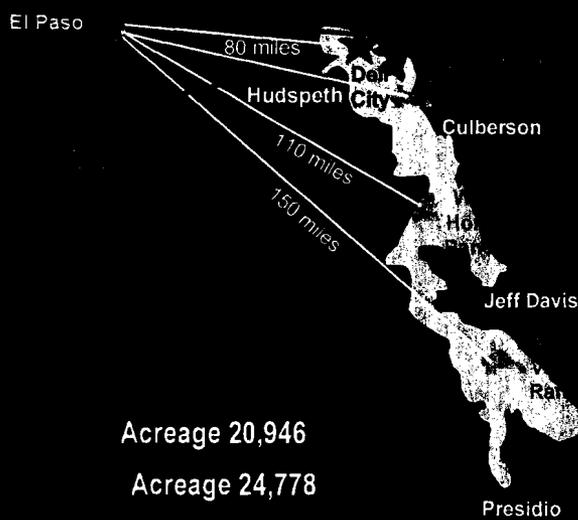


## Estimated Project Costs

EPWU	\$57.9 M
Fort Bliss	\$3.3 M
EPA	<u>\$26.0 M</u>
Total	\$87.2 M

# Importation

## Importation of Water



Acreage 20,946  
Acreage 24,778  
Acreage 27,554



# Questions/Discussion





# **DONALD M. LIONETTI**

**Lieutenant General, United States Army (Retired)  
4517 West Rosemere Road, Tampa, Florida 33609**

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June 30, 2005

Secretary Anthony J. Principi  
Chairman  
2005 Base Realignment and Closure Commission  
2521 South Clark Street, Suite 600  
Arlington, Virginia 22202

Dear Mr. Secretary:

My purpose in writing is to highlight my concern with the specific BRAC proposal that would relocate the Fort Bliss US Army Air Defense School and its supporting training brigade to Fort Sill, and to suggest, most respectfully, that the commission reject this specific initiative.

As a career air defense artillery officer, a former deputy commander (1986-88) and a former commanding general (1989-91) of Fort Bliss, I feel qualified to speak to the intolerable consequences should this initiative be executed. The enormity of Fort Bliss' existing ranges and training areas, with mature infrastructure and supporting instrumentation essential to the development of air and missile defense technology, and the training of soldiers in this unforgiving science, is not replicable at Fort Sill. Indeed, the constrained training areas there will not accommodate more than one Patriot battalion, and the ranges are not sufficiently large to permit even the firing of the short range Stinger missile.

Air Defense Artillery is relevant and critically important to future military operations across the entire spectrum of conflict. From its operational role of providing umbrella coverage over deployed soldiers to the more strategic contribution of sheltering capitals and strategic assets of countries willing to host the presence of US or coalition forces, missile defense capabilities contribute to the options available to the National Command Authority. The United States has made a major investment in the Patriot force which proved itself so effective against tactical ballistic missiles in Operation Iraqi Freedom, and has committed to multi-billion dollar programs for future systems such as the tri-national MEADS program, THAAD, and even to our national Ground Based Mid-Course Strategic Missile Defense initiative. BRAC must not destroy the ADA School capabilities and infrastructure by trying to squeeze them into inadequate vacant space at Fort Sill.

Forced co-location does not improve coordination between the fire support community and the air and missile defense world. While both technologies contribute as pillars of missile defense, the overlaps are minimal and certainly ought not to drive this BRAC decision. Effective networked fires do not require a "Netfires Center" and, indeed, will never be realized if our air and missile defense infrastructure is crippled by forcing an unneeded geographical marriage. Moreover, such an

**Major General Donald R. Infante, USA (Ret.)  
1200 Gulf Blvd, Apt 1604  
Clearwater, FL 33767**

30 June 2005

Secretary Anthony J. Principi  
Chairman  
2005 Base Realignment and Closure Commission  
2521 S. Clark Street, Suite 600  
Arlington, VA 22202

Dear Mr. Secretary,

While you were the Secretary of Veteran Affairs, it was my honor to introduce you as our guest of honor and speaker at our May 2001 Armed Services YMCA Congressional Luncheon. As the Chairman Emeritus of the National Board of Directors, first let me thank you for your continuing support of the ASYMCA. Your support has helped the ASYMCA in 2004 serve over 750,000 Service members and their families. The ASYMCA remains the preeminent organization dedicated to enriching the quality of life for our young military and their families.

At our Congressional Luncheon, your talk was straight from the heart and you left the impression of one who truly cares about doing what is best for our service personnel and our armed forces. Your appointment by our President to lead the BRAC Commission was an outstanding selection. I have confidence that you will do what is best for our great Nation.

My purpose in writing you directly is my concern over the recommendation of the Department of Defense to move the Army Air Defense School and Center and an Air Defense Artillery Brigade from Fort Bliss, TX to Fort Sill, OK. First of all, let me assure you that I am not in the employ of the City of El Paso or any other group seeking to protect Fort Bliss from any cuts or realignment. My concern is that the move will not "...improve training effectiveness and functional efficiencies..." as stated by DOD. There may be other valid larger objectives for this move. However, as the Commanding General of Fort Bliss from 1985 to 1989, and with a 44 year career in Air Defense Artillery, I unequivocally state that the recommended move will instead result in substantially reduced training effectiveness and functional efficiencies of not only our Air Defense forces but our total joint force. Three primary reasons for this readiness and war fighting reduction:

- Training as We Fight. The Air Defense forces support the ground forces of our Army and USMC by providing, along with the USAF, protection against both air and missile attack and controlling the airspace over the battlefield. Fort Bliss is one of the few bases that has the training facilities to support joint and combined

air land battle exercises with our ground forces and our Air Force. To not train in peacetime as we fight with these joint and combined forces would result in a substantially less ready total force. Fort Sill's limited facilities will not permit the combined and joint training and major exercises that now are routine at Fort Bliss. To base the air defense school and force that is an integral part of these exercises over 650 miles from their training ground is both cost ineffective and a waste of manpower.

- Functional and Mission Disparity. The objective after moving the Air Defense School to Fort Sill is to form a "Net Fires Center" by combining elements of both our air defense and artillery forces. The air defense forces attack and destroy air targets using integrated sensor data from both space and other joint forces. The artillery forces attack and destroy ground targets using organic sensors and battlefield intelligence. There is little synergy between the two forces due to functional and mission disparity. Compared to the Fort Bliss air and missile defense infrastructure in place, the proposed "Net Fires Center" is illogical from a war fighting perspective.
- Soldier and Leader Training of the Air Defense Force. Fort Bliss was selected as the home for Army Air Defense forces by the DOD leadership in the early 1950's due to the availability of firing ranges to support long distance missile engagements. Since that time, the complexity of air defense engagements, now primarily against enemy missiles, has increased as have engagement ranges. Also, the DOD has heavily invested in system training simulators and radar technical trainers to provide highly trained war fighters at minimum expense. To believe that over a half century of complex and highly technical training infrastructure can be easily relocated and done so at a reasonable cost is unrealistic and foolhardy. The concomitant negative impact on the training readiness of our air defense force soldiers and leaders is immeasurable.

Mr. Secretary, I recognize the difficulties the Commission faces in making these extraordinary and difficult decisions and I also know that there are many factors; political, economic and military that bear on those decisions. However, I felt that I should point out to you personally some of the admittedly parochial military aspects of this issue. Having been in the air defense artillery business, both in the Service and in the civilian sector for my entire professional career, the rationale provided by DOD for their recommendation flunks the common sense test. In summary, as I stated above, the move of the Army Air Defense School and associated forces from Fort Bliss to Fort Sill, makes neither force readiness nor cost effectiveness sense. I ask that you conduct an in-depth review of this proposal. I firmly believe the facts will support leaving the Air Defense School and its associated forces at Fort Bliss. I wish you all the best in your important endeavors and you have my prayers for success.

With High Regard,

*Don Infante*

8512 Mountain Willow Drive  
El Paso, Texas 79904  
July 3, 2005

Chairman, 2005 Base Realignment  
and Closure Commission  
2421 S Clark Street, Ste 600  
Arlington, VA 22202

Dear Sir,

By way of introduction, I am Major General, U S Army Retired, John B. Oblinger who served as Assistant Commandant of the Air Defense Artillery School at Fort Bliss as a Brigadier General from 1976 to 1979. When promoted to Major General in 1979, I served as Commandant of the Air Defense Artillery School and Commanding General of Fort Bliss from 1979 to 1982.

My purpose in writing this letter is to express strong disagreement with the move of the Air Defense Artillery School to Fort Sill as part of BRAC 2005. While the U. S. Army's "NET FIRES" project has some limited tactical battlefield advantage when matured, U. S. Army Air Defense has been a key player for over 50 years in Theater and Strategic "NET FIRES" with the U. S. Air Force, Navy, Marines and NATO Forces. This is the way Army Air Defense Doctrine is written, how Air Defense trains and the way Air Defense has performed during the Cold War, and the way Army Air Defense has fought in wars as recently as Desert Storm and Iraqi Freedom.

My second argument that I will develop against the move will expand on the loss of the magnificent facilities and ranges at Fort Bliss compared to Fort Sill and the potential loss of many key experienced Civil Service members from the Air Defense Artillery School's Combat Development, Training Development, Doctrine and Evaluation Departments. Senior, experienced Civil Servants will not move to Fort Sill.

In 1958 my personal command of Army Air Defense in a netted command structure began with command of a nuclear capable Nike Hercules Battery in the Washington-Baltimore Region of Continental Air Defense Command with U. S. Air Force and Army as well as Canadian radars for early warning and fire direction, as well as fighter Aircraft and Missiles. This was about "netting" and Command and Control on a Theater basis, which was the North American Continent! The U. S. Army Air Defense Artillery School developed missile and radar hardware, participated in doctrine development, and trained and evaluated those Army Air Defense Forces. In 1969 - 70, as a nuclear capable Nike Hercules Air Defense Battalion Commander and again in 1973 - 1975 as a nuclear capable Nike Hercules Air Defense Group Commander, Air Defense was part of the NATO Air Defense of Europe. Again, the Air Defense Artillery School at Fort Bliss developed the Army Air Defense Doctrine, conducted the training of Air Defense Officers and Enlisted Forces, did the studies which led to the development of radar sensors and missile systems and then evaluated the testing at the Fort Bliss and White Sands Ranges. In 1975 - 1976, I was the Commander of a nuclear capable Nike Hercules and

Hawk Brigade in South Korea operating in the joint and coalition Air Defense of South Korea composed of U. S. Air Forces, Korean Air Forces and Korean Army Air Defense Forces. Again, these Air Defense forces worked within a single command structure with "netted sensors" from all components to form an integrated Air Defense capability. All of this Cold War history of Army Air Defense working within joint and coalition Air Defense forces, trained and provisioned through the efforts of the Air Defense Artillery School indicates the ability of Air Defense to master the techniques of joint and coalition warfare on a much greater and difficult scale than the relatively smaller scale of the Air Defense and Field Artillery "NET FIRES" concept. Army Air Defense has successfully participated in "NET FIRES" and Joint and Coalition Warfare on a global scale!

Again, this was proven successful in Desert Storm where the TRADOC, including the Air Defense Artillery School, written and trained "Air Land Battle Doctrine" was implemented successfully. Following this was again the strategic and regional as well as tactical employment of Air Defense Patriot missile forces during Operation Iraqi Freedom. Joint U. S. Army, Air Force, Marine and Naval forces operated in concert from air, land, and sea from Kuwait across Saudi Arabia and Jordan to Israel in an integrated coalition air space and missile defense of coalition forces as well as strategic value targets.

One of the major reasons for this most recent success in addition to the many years of experience of working together during the Cold War is the annual training exercises since 1989, conducted at the Fort Bliss and White Sands Ranges called Roving Sands. Roving Sands is the world's largest joint theater air and missile defense training exercise. The mission of Roving Sands is to integrate Joint Tactical Air Operations, including Army, Air Force, Navy and Marine command and control capabilities. Multi-national forces from five NATO countries have participated on a near annual basis. Major command and control nodes have been located at Fort Bliss and across the United States. In addition to the real force players operating on the range and from the southwest region of the United States, often numbering over 20,000 troops on the ground, the Fort Bliss Battle Simulation Center of the Air Defense Artillery School is used to provide additional inputs to make the exercise as realistic as possible. Having these, at least 14 day, annual air and missile defense exercises co-located at Fort Bliss with the many air defense units, air defense battle command headquarters and the Air Defense Artillery School provides the School with a Battle Laboratory to exercise, perfect and chronicle the many tactics and techniques learned through these "boots on the ground" exercises. Moving the Air Defense Artillery School to Fort Sill would curtail seriously this "Battle Laboratory" proximity relationship. The projected move of the Air Defense Artillery School to Fort Sill for what seems to me, as well as many others who have served in both Field Artillery and Air Defense Artillery, a very minimal gain seems truly UNREALISTIC!

I am sure you will hear and read the many physical advantages of Fort Bliss over Fort Sill. A short list includes the 1.1 million acre range area of Fort Bliss, not counting the White Sands and Holloman ranges, all with virtually unrestricted air space. The ability to fire all missile systems at Fort Bliss, with virtually no capability for missile firing at Fort Sill! Frequency management for all radars of current and future systems can be a problem at Fort Sill, where no problem exists at Fort Bliss. The proposal to move the School as well as the 31<sup>st</sup> ADA Brigade to Fort Sill will impact severely the ability of Air Defense to have adequate areas to

train. There is no training space problem at Fort Bliss. In fact, Fort Bliss could accommodate all planned incoming units and more and still have adequate space for the Air Defense Artillery School and the 31<sup>st</sup> ADA Brigade.

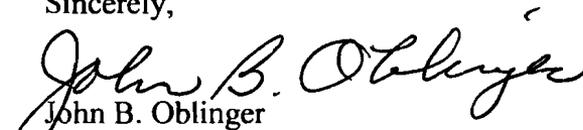
Another negative of moving the Air Defense Artillery School is the loss of the over forty year positive relationship at Fort Bliss with the German Air Force Air Defense Center co-located at Fort Bliss since 1963. Much has been shared through the years between these NATO Allies. The German Air Force has the predominate number of NATO Patriot units in Europe. What will become of this long-term positive relationship so close on the ground at Fort Bliss? In my opinion, it is unlikely that the German Air Force Air Defense Center would move to Fort Sill.

Finally, consider the potential loss of the senior, experienced civilian managers and employees of the Air Defense Artillery School that is sure to happen by the move to Fort Sill. Many of these positions are filled now by former Air Defense Branch officers, warrant officers, and non-commissioned officers who have years of Air Defense experience while they served on active duty. There are also senior, experienced graduate engineers, systems analysts and other types of managers who have spent their entire careers working in Air Defense Combat Developments, Training Developments, and Test and Evaluation. Many of these experienced and talented personnel conducted the Air and Missile Defense Studies and Analyses that lead to the fielding of Stinger, Chaparral, Patriot, Bradley Linebacker, Avenger and the requirements documents leading to the development of Theater High Altitude Air Defense (THAAD) and the cooperation with NATO leading to the MEADS system development. These studies were NOT conducted at Department of the Army or OSD. They were conducted at Fort Bliss with participation from the TRADOC Systems Analysis Agency (TRASANA) at White Sands. These senior, experienced civilian employee combat developers, training developers and doctrine writers will not likely uproot from El Paso and move to Fort Sill.

In conclusion, I have argued the advantages of keeping the Air Defense Artillery School at Fort Bliss and the disadvantages of moving to Fort Sill. I have not mentioned the cost in dollars. I cannot even estimate, but believe the cost to be excessive; and for what modest gain in Air Defense and Field Artillery "NET FIRES"?

Compared to what Air Defense has accomplished throughout over fifty years in tactical and strategic joint and coalition air space management and control, "NET FIRES" could be accomplished with the Air Defense Artillery School and the Field Artillery School remaining in place.

Sincerely,

  
John B. Oblinger  
Major General, U S Army (Retired)

**July 6, 2005**

**TO: Secretary Anthony Principi  
Chairman, 2005 Base Realignment and Closure Commission  
2521 S. Clark Street, Suite 600  
Arlington, VA 22202**

**FROM: MG (USA Ret) William H. Riley, Jr.  
6200 Via Aventura Dr  
El Paso, TX 79912**

**Dear Mr. Chairman:**

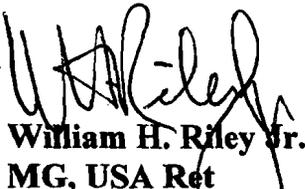
**By way of introduction, I am a retired Major General who served this country for over 30 years. I served in command of all the major types of troop commands in Air Defense Artillery, culminating in 1984-86 with the position of Deputy Commanding General of Ft Bliss, Texas.**

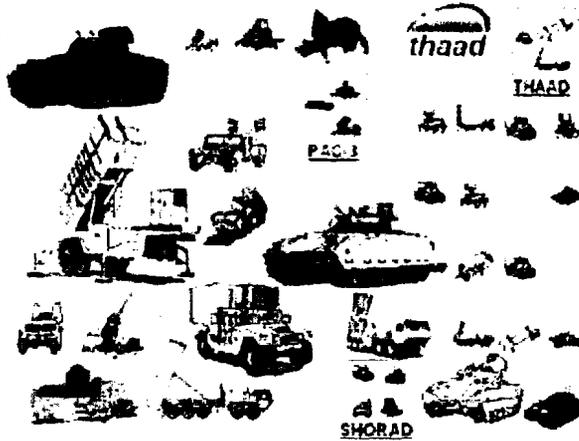
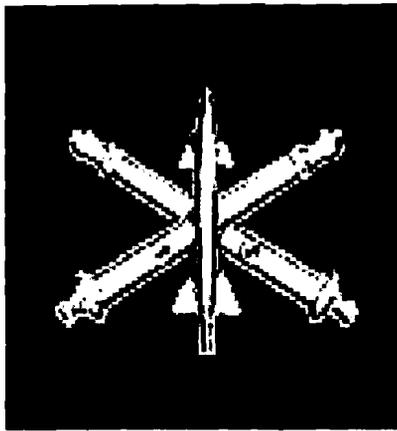
**I write to you because of my concern for the direction that has been set by the Department of Defense for Air Defense Artillery in the future; specifically the move of the ADA Center and School from Ft Bliss to Ft Sill. Recently, the Senate has been provided with the rationale, assumptions, and analysis for this move. I believe this analysis is flawed, with many errors of omission/commission, such as: the airspace restrictions appear to be mixed up between Ft Sill and Ft Bliss (Ft Sill is very restrictive; Bliss is not); the road infrastructure at Ft Sill cannot support the large truck driving school which is an adjunct to the ADA School; and the "Net Fires Concept" is operationally unsound. There are many other considerations, which I have addressed and attached in the enclosed issue papers. Some have specified that money was not an issue...I think the analysis suggested about \$300,000 should cover the School move—but I think this figure is a gross underestimate, and the figure is perhaps 1/10<sup>th</sup> the actual cost.**

**I hope the attached issue papers will prove helpful to you. I am concerned that a rash and ill-considered move of ADA to Ft Sill will have lasting effects on our military effectiveness and operations. Although Ft Bliss stands to gain some 11,000 troops under BRAC, I think the larger issue is whether our military will gain or lose effectiveness in this shuffle. I also think Ft Bliss could easily accommodate BOTH the 1<sup>st</sup> Armored Division elements AND the ADA Center and School.**

**Thank you for your continued support to the El Paso/Ft Bliss community and our National Military Forces.**

**Sincerely,**

  
**William H. Riley Jr.  
MG, USA Ret**



## REASONS NOT TO MOVE AIR DEFENSE

- 1. Cost and Risk:** Estimated cost of moving ADA Ctr & Sch is at least \$297M (total estimates could reach billions, and one source tells me that \$300M is not one-tenth of the true cost of the move). USAADASCH is a massive technology base for computer-based teaching. Each of the Patriot Conduct of Fire Computers (PCOF) will cost \$500,000 just to transport them to Ft Sill. Labor involved in the PCOF transfer will amount to \$1.9M. Where will savings be realized?
- 2. Operational Impairment:** The "Net Fires" Concept has serious, high risk errors for successful ADA operations. It assumes functional overlap between ADA and FA—overlap that doesn't exist in reality. FA engages fixed or slow-moving objects on the ground; while ADA engages multiple, fast-moving objects in the air. Tactics, techniques, identification-friend-or-foe needs, technical language and procedures to solve these problems are fundamentally different between the two branches. The new C-RAM system is a good modification of the old Phalanx Navy system, but it is only a tiny percent of firepower, and certainly not justification for moving all the ADA Schools and Center to Ft Sill.
- 3. Ranges/Infrastructure at Ft Sill Inadequate for ADA:** Cannot fire Stinger Manpads, Patriot, etc.. at Ft Sill. Costs will be incurred for yearly travel back to MacGregor Range to fire and train.
- 4. Loss of Technology base (Personnel & Equipment):** If the Center and School move to Ft Sill, El Paso will lose 4,564 military and 223 civilian jobs, many of which are high grade R&D and Force-Development-related. El Paso Technology firms (Raytheon, Boeing, et al) will move to Huntsville, AL and

# **BRAC ATTACK**                      **10 June 05**

## **(Feedback from a former Deputy CG of Ft Bliss)**

**El Paso seems happy with the news that they will gain 11,000-plus troops under the results announced for the Base Realignment and Closures (BRAC) Review. However, I am more concerned with the impact of moving the Fort Bliss Air Defense Center and School to Ft Sill, Oklahoma. More effort seems being devoted by the appropriate congressional representatives to saving the four other military bases in east Texas that have been cut by the BRAC announcements. However, I don't think it is an exaggeration to say that the ADA move to Ft Sill will be quite possibly the demise of Air Defense Artillery in the Army, and I would hope major effort is devoted to reversing some decisions that I believe will have major repercussions for our Army in the future. This paper is devoted to advancing my reasons for concern over the BRAC decisions.**

**I have tried to ignore the parochial and political intrigue that the rumor mill has produced. However, since the rationale for the BRAC decisions has not been forthcoming and other parts are classified, I will address the issues as I see them and as my background and experience allow me to view them.**

**1. Saving Ft Sill from BRAC Closure: One statement I heard was that this is primarily an effort to save Ft Sill from closing under the BRAC study. I know there is an effort to create multi-function bases in the USA---with a mix of fires and support that can be rapidly deployed (i.e. sending slices of Armor and ADA to Fts Benning and Sill). However, high-level study groups frequently ignore factors like morale, esprit, chain of command, coalition warfare coordination, and theater operational requirements. Not all of the ADA battle is fought at Brigade and below levels, and Theatre ADA requirements are quite complex for airspace control, coalition warfare, joint ADA service coordination, etc.. Yesterday, at a change of command for the Commanding General of Ft Bliss, I listened to the TRADOC CG delineate, in a most articulate way, the many improvements that had been made in the ADA School and Center at Ft Bliss. I could not help but think that the BRAC initiatives will destroy nearly all of the progress that has been made in the Schoolhouse and in the deployment of ADA and other Branch units. Has the BRAC committee considered the fact that during the last two wars (Desert Storm, Iraq/Afghanistan), the senior officers of Ft Bliss School and Center were deployed to handle the Command and Control Centers in Israel, Kuwait, Qatar, Bahrain, and other areas? By being stationed at Ft Bliss, they had the advantage of knowing the commanders of the ADA units stationed at Bliss, as well as the capabilities and strengths of those units. The Joint Services**

Coordination Centers are a mammoth undertaking of coordination, with considerable effort made in accommodating the host nation desires, inputs, and needs. Coalition warfare is a prerequisite of most future battles, and capable leadership will be hard to assemble and handle the needs of Air Defense coordination/control above fire unit level. Fratricide is a serious problem, and airspace coordination requires a full team effort at echelons above brigade fire unit. The proposed move to Ft Sill is a bad idea for many reasons, which I will attempt to enumerate.

2. Inadequate Ranges at Ft Sill: The ranges are inadequate at Ft Sill to fire the Patriot missiles—any ADA unit stationed at Ft Sill will have to return to MacGregor Range/Ft Bliss to fire missiles and maintain firing proficiency. Although Patriot missiles are fired only sparingly because of the cost, the units use the MacGregor Range yearly for maneuvering and bringing their units up in readiness status all the way to the point of an actual firing. The travel from Ft Sill to MacGregor Range will not only incur additional expense each year, but the units themselves will lose the experience base shared with their sister units at Ft Bliss. Even the FA's Multiple Launch Rocket System (MLRS) of Ft Sill also must travel to MacGregor Range to fire its missiles. Additional firings of Redeye, Stinger, Stryker, Pedestal Mounted Stinger, as well as Patriot lot acceptance firings and other ADA weapons must fire at MacGregor Range.

3. Cost to replicate Technology Infrastructure at Ft Bliss: The ADA Schoolhouse is a massive technology base, with computer technology to assist in imparting very technical knowledge through a great variety of courses. I doubt that Ft Sill could even handle the power requirements of this task, never mind the technical integration of all the self-paced computer frameworks. It would require the purchase and installation of expensive power converters to accommodate the power needs of these sophisticated training computers. I have been told that the Patriot Conduct of Fire (PCOF) computers would cost some \$500,000 each just to transport them to Ft Sill, and there are three of these huge training devices. A recent estimate of moving the PCOF's reaffirmed that it would cost \$1.98 Million—labor ONLY. Packing, crating materiel and transportation are NOT included.

4. Impact of Civil Service Conversion: Over the past several years, the Schoolhouse has been directed to convert military instructors to civilian civil service positions. Much progress has been made in converting NCO's and CWO's to civil service slots, and this base of expertise is a valuable but fragile entity. The feeling is already being perceived, from "town meetings" with civil service employees, that a large number of them will not transfer to Ft Sill—this valuable base of experience is perishable, and not easily reconstituted.

5. Loss of Experience base at El Paso if move to Ft Sill: If the ADA Center and School move to Ft Sill, El Paso will lose 4,564 military and 223 civil

jobs, many of which are high grade R&D and Force Development-related. We would lose up to 500 analyst/engineer positions in El Paso firms (\$70,000 salaries). We would lose near-term, long-sought-after opportunities for new engineering and R&D jobs, and a planned R&D Park. There would be a brain-drain of Univ of TX at El Paso engineering and science graduates, who are predominantly Hispanic, and whose numbers far exceed local job opportunities. A present initiative which provides Army ADA Career Course attendees to a UTEP Leadership Master's Degree Program will be disestablished.

**6. Branch Schools are Valuable Assets:** On the broad side of the issue, I would hate to see the Army lose the repository of experience and talent that rests in the Branch Schools and Centers under TRADOC. There **SHOULD** be an Artillery Center and School at Ft Sill; an Armor CTR/Sch at Ft Knox; an Infantry Ctr/Sch at Ft Benning; an Aviation Sch/Ctr at Ft Rucker; and ADA Sch/Ctr at Ft Bliss; etc., etc.. I would need many more pages to this letter to explain this, but it should be SELF-EVIDENT! Although the Branches can sometimes be more parochial than we might like, they also provide valuable leadership to their subordinate units, as well as orchestrating recommendations on R&D decisions, and responding to Congressional inquiries, as well as other functions. We might go one step further into the ridiculous and ask why do we need a Pentagon?

**7. 1<sup>st</sup> Armored Division to Ft Bliss:** It has been reported that an Armored Division will be retasked from Europe to Ft Bliss. Since the Armored Div CG is a two-star General slot, it has been decided through BRAC that he will command Ft Bliss. ADA will lose the 2 star slot at Bliss, and the ADA one-star will be sent to Ft Sill to be the Asst Comdt of the ADA School. The Ft Sill 2-star will command Ft Sill and all units assigned to it. This will be a bad plan for the following reasons:

a. One consideration was to avoid two 2-star Generals at Ft Bliss. Why can't there be two 2-star Generals at Ft Bliss? I was assigned to Ft MacPherson where 14 Generals all lived together on Staff Row. They each had separate commands, and other than social interaction, they did not mix their command business with the other commands. ADA and Armor are separate branches, and I don't think either branch can fully understand the complexities of the other. An Armor General has not grown up with the various ADA systems and does not understand their functioning, command and control, nor their employment. The same could be said of an ADA General and Armor systems. Why can't both 2-star Generals manage each of their commands at Ft Bliss (there appears to be plenty of room for both commands)? We certainly wouldn't want the Armor General to only commence become acquainted with all his subordinate units only when the war begins, and we conversely would

expect the ADA General to know the strengths and weaknesses of his subordinate leaders and their units before the battle begins.

b. We have been down the road before of having ADA and FA be assigned to the same Personnel Branch and having their officers attend classes at both Ft Sill and Ft Bliss. It was a bad idea back then, and it is a worse idea now. The technology and employment of ADA weapons has progressed light-years since the days when the Branches were joined. I invite you to research the archives of the ADA Branch to trace the original reasons for having separate ADA and FA Branches. Please don't send us back to the Stone Age.

c. The preponderance of ADA Bde HQ and Bns are now stationed at Ft Bliss. They are convenient to MacGregor Range for both missile firing and for FTX's. Ft Bliss staff is expert in determining the scheduling, evaluation, and conduct of these events. Valuable expertise will be lost by sending the Center and Staff to Ft Sill. No ADA weapons can be accommodated on the ranges of Ft Sill.

8. German Air Force/ADA and Allies at Ft Bliss: The German Air Force has been training its ADA soldiers in the Patriot and Hawk Missile systems here at Ft Bliss since 1956, and are part of the family. Their economic impact will certainly be felt...all live on the economy; all spend money; and all will go home to Germany if we move to Fort Sill. They have not been consulted with, and they were surprised when the BRAC announcement was made. The German AF Defense center has about 130 staff, who train about 600 students each year. The Germans, as well as Allied Students from many other countries who live and train at Ft Bliss, have a close relationship with our post, as well as the firing ranges at MacGregor Range. The commanding officer of the German unit said that his military invests millions of dollars per year in operational costs, and have made numerous investments in the post infrastructure over the past decades. There is a great tradition of fondness for the El Paso region with our Allies, and there is a strong connection with the community.

9. Magnitude of the loss of Ft Bliss: Ft Bliss, WSMR, and Holloman AFB comprise 26% of the total DOD land. We have the largest DOD-controlled airspace in the world, and it is possible to fly from Ft Bliss to California without ever leaving DOD airspace. We have the largest maneuver area in the US Army---one million acres of training space with no environmental limitations. The Community (El Paso, Las Cruces, and Alamogordo) is extremely supportive of the military. Great training weather---300+ days of sunshine, and valuable desert training milieu. We are told that Ft Bliss ranked #1 in Military Value during the DOD BRAC analysis.

10. The Army Net Fires Center Concept: I have been only peripherally made aware of the new initiative to establish an Army Net Fires Center at Ft

Sill (ADA and FA) and a Maneuver Center at Ft Benning (Inf and Armor). However, I am troubled by the goals, coordination, and operational deployment concept of the "Army Center of Excellence for Joint Fires and Effects" at Ft Sill, OK. I have often heard it said that the Army is always studying the last war they fought. It seems to me that this adage is partially true in this case, and I have major problems with the concept. When I was the DCG of 3<sup>rd</sup> Army/ARCENT in 1988-90, I frequently participated in CENTCOM field training exercises. USAF Gen Chuck Horner frequently chaired the meeting to develop the Air Tasking Order, and many issues of Airspace Control and Target Priorities were discussed---but I never saw a predominant influence of the Field Artillery Commander. Now, under the Net Fires Center, Fort Sill and the Field Artillery will be the Service Representative on all matters dealing with Joint Fires and Effects. In my military experience, the FA simply determines a coordinating altitude for a particular firing area, and then all the other Joint Service Aviation members check in by radio if they desire to transit that area. Yet now, under the new concept, Field Artillery is charged with "deconflicting the airspace; employing Air Force, Navy, and Marine Tactical Aircraft, Command and Control, and identifying and attacking targets". I wonder how the USAF and Marines feel about the FA controlling and integrating their A-10's and carrier-based aircraft? Just because FA has the surface-to-surface fire deliverers, how does this make them qualified to handle air-to-ground and surface-to-Air/Space fires? If we have a mini-TRADOC at Ft Sill, how will they exert doctrinal control over the USAF and Marines/Navy? When did FA ever deliver early warning previously to all the customers? Certainly this is not the way we have fought in Iraqi Freedom, Desert Storm, or Afghanistan. Frankly, it makes me wonder what happened in the last two wars ---Who did ADA make mad? Things like this usually originate in Lessons Learned and other battle lessons, but I see no evidence that this methodology has been followed by BRAC. I thought Generals Green, Anderson, and Bromberg and other ADA staff had made great fans out of the CENTCOM staff and other battle participants (there were many success stories of coordination and employment). I also envision that this will lead to the "dual qualifications" that we were burdened with when ADA and FA were joined until 1968. Hell, we can't even get our own ADA guys to become qualified technically in both HIMAD and SHORAD. Now we want both BRANCHES to become dual-qualified.

11. Proud History of ADA at Ft Bliss: I know that over 65 years of tradition and lineage of the ADA Center and School being at El Paso does not lend itself easily to statistical analysis, but it is certainly a factor in those of us who cherish this proud service to our city/country. It did not pass notice that Huntsville, Alabama, MDA, Army Materiel Command, and the R&D

community all stood to gain significant expansions—perhaps this is reflective of the good political representation that Alabama had on the various committees concerned with Defense. At any rate, if all the weapons R&D and ADA HQ expertise moves out of El Paso, then Raytheon, Boeing, and other Defense contractors will follow with moves to Huntsville, and El Paso will certainly experience a “brain drain”, with the loss of jobs and skills. I understand the “initial” cost of moving the ADA Center and School was estimated by one evaluation team at \$300,000 (Ft Bliss has since estimated that the move will cost \$267 Million). This is extremely short-sighted, because there are many costs that we can envision which will rapidly inflate this estimate. This is also at a time when our Nation is incurring skyrocketing costs for the war in Iraq; recruiting is having a tough time meeting the increased personnel accessions demands (and bonuses are at record high levels for enlistment/reup); and the R&D budget is being expanded.

**12. 1997 Home-Basing ADA:** In 1997, ADA embarked on forming an “Air Defense Center of Excellence” (ADCOE), with the approval of high commands of the US Army. This initiative was targeted at bringing all the ADA Brigades to one location (Fort Bliss) in order to achieve synergy of effort. With all the deployments throughout the World for ADA, this effort would provide a home base with great quality of life for ADA soldiers and their families. As the most-deployed troops in the world, ADA soldiers could buy a home here, build equity, and become accustomed to El Paso and the opportunities that it provides. Further, wives and children could be tended to by the Post elements in the Chain of Command during the frequent deployments (Saudi, Germany, Korea, etc.). El Paso would also gain from the promise of a labor source after Army personnel retirement from the Military. Logistically and operationally, the home-basing idea also provided some efficiencies. Consolidation enabled units to piggy-back off multiple unit ASL’s and PLL’s, and cross-level parts between units. The units also utilize Contractor-operated facilities to enhance the readiness rates of our Army’s #1 Strategic Option. We were able to swiftly deploy ADA units to Israel, South Korea, Turkey, Qatar, Kuwait, and Saudi Arabia, for example. After 5+ years, the Patriot forces and the ADA School have been able to take advantage of the AMCOM Modification and Installation Facility, which is operated by Raytheon here in El Paso. This AMI is a place where unit intermediate direct support maintenance and fire unit maintenance officers can obtain seasoned support and repairs to their equipment at reduced cost, versus having to send systems to the Army Depot in Pennsylvania. Raytheon also has another facility in El Paso (at Biggs AAF; called “the Hangar”) that serves as a great resource for maintenance support and fabrication of hard-to-find Patriot repair parts. Both Raytheon locations can perform Depot-level repairs on almost all Patriot components. The value has

been repeatedly demonstrated during the Patriot Reset Program, where every single PAC-3 (most advanced version of Patriot) was returned to full 10/20 pre-deployment standards. When the Patriot and ADA Brigades/Battalions deploy to multiple locations, this synergy will be difficult to duplicate, and its absence will result in more costs to the taxpayer.

13. Moving the ADA Museum to Ft Sill is a very bad idea. Our present physical plant has improved greatly from the days when we inherited the old Ft Bliss PX complex. The physical size of this building is over 108,000 square feet, making it one of the largest military museums in the USA. We have relocated ADA equipment that had been stored in some 17 warehouses within Ft Bliss and have restored many valuable pieces of military hardware. We have worked to raise money through Gala Veterans' Day Celebrations, raffles, silent auctions, grants, donations, memberships, and other events. This allowed us to build a million-dollar, 189-seat auditorium, that is able to project state-of-the-art graphics, and we hold monthly History lectures as well as Unit events to highlight historical relevancy. We are proud of our progress and have a plan to make further improvements.

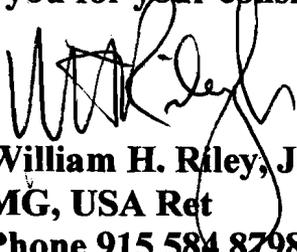
There is a retired military population in El Paso of some 50,000 retirees, the majority of which have served in ADA and been stationed repeatedly at Ft Bliss during their active duty careers. The ADA museum is well attended by them, and at our Gala Ball we routinely have some 750+ attendees who pay \$50 per seat and more (some tables sell 10 seats for \$10,000) to attend and honor our veteran heroes. This audience would be lost if the museum moves to Ft Sill, since there would be no relevance there to past ADA assignments or experience. There would also be considerable costs involved in building a suitable repository for present displays—and the displays should be not just a parking lot for weapons, but rather a “diorama”, showing uniforms, vehicles, arms, and other memorabilia appropriate for the specific weapon. We have worked hard to inject history into the schoolhouse and community, and it would be a shame to lose this effort.

14. Finally, it is a twist of irony that I myself am addressing this issue. I was the first Brigade Commander of ADA to be tasked with fielding that Brigade at Ft Lewis, WA in an Infantry Division (9<sup>th</sup> ID). The purpose, as part of the High Technology Test Bed, was to give the Infantry Divisions a slice of all ADA weapons and command/control/communications. Now, at the direction of the Secy of the Army, we are doing away with Divisional HQ, and fielding “Units of Exploitation” in an effort to construct highly deployable units with an appropriate mix of fires and support. I say it is irony because in 1980 when I formed the ADA Brigade at the 9<sup>th</sup> ID, the end result was that the Army could not afford the assets to put such a unit in every Division, and so the idea was scrapped. So now we are attempting to put an ADA slice in every one of the

**Brigades that is being formed under the new concept. While I fully agree that a deploying Brigade really needs ADA accompanying them to establish an airhead, I also worry that if this is not done correctly, we will fritter away our precious few ADA assets at the lower levels of command support and not be able to deploy ADA on high-dollar value assets that desperately need ADA protection. Further, there must be a higher level of command and control than at Bde level---as proved by our recent deployments for Iraqi Freedom and Desert Storm.**

**15. I know that others are working to reveal facts and concentrate on some of the BRAC recommendations concerning ADA . I also understand the reluctance of some local key active military representatives to make their own opinions of opposition to the ADA move known, because there is a strong tradition of loyalty to the chain of command that will tend to suppress any criticism of the planned move to Ft Sill. However, a bad decision only gets worse with age, and I would hope that critical issues receive expeditious handling and reach the proper decision-makers early in the process.**

**I submit these comments not out of a sense of “sniping” at the BRAC committee and higher Army authorities, but rather out of a genuine concern for the direction our efforts at Ft Bliss have taken and in a spirit of trying to air my concerns about the future, with a view to preventing actions to “fix something that isn’t broken”. Although retired, I am still intensely loyal to the Army and belong to several local Veterans’ groups. Please do not promulgate changes that may not have considered all the ramifications, costs, and operational consequences that may be visited on our Branch and the Army. Thank you for your consideration of these matters.**



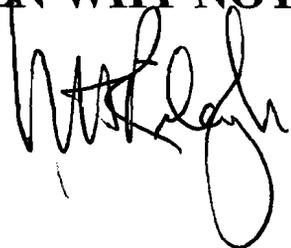
**William H. Riley, Jr.  
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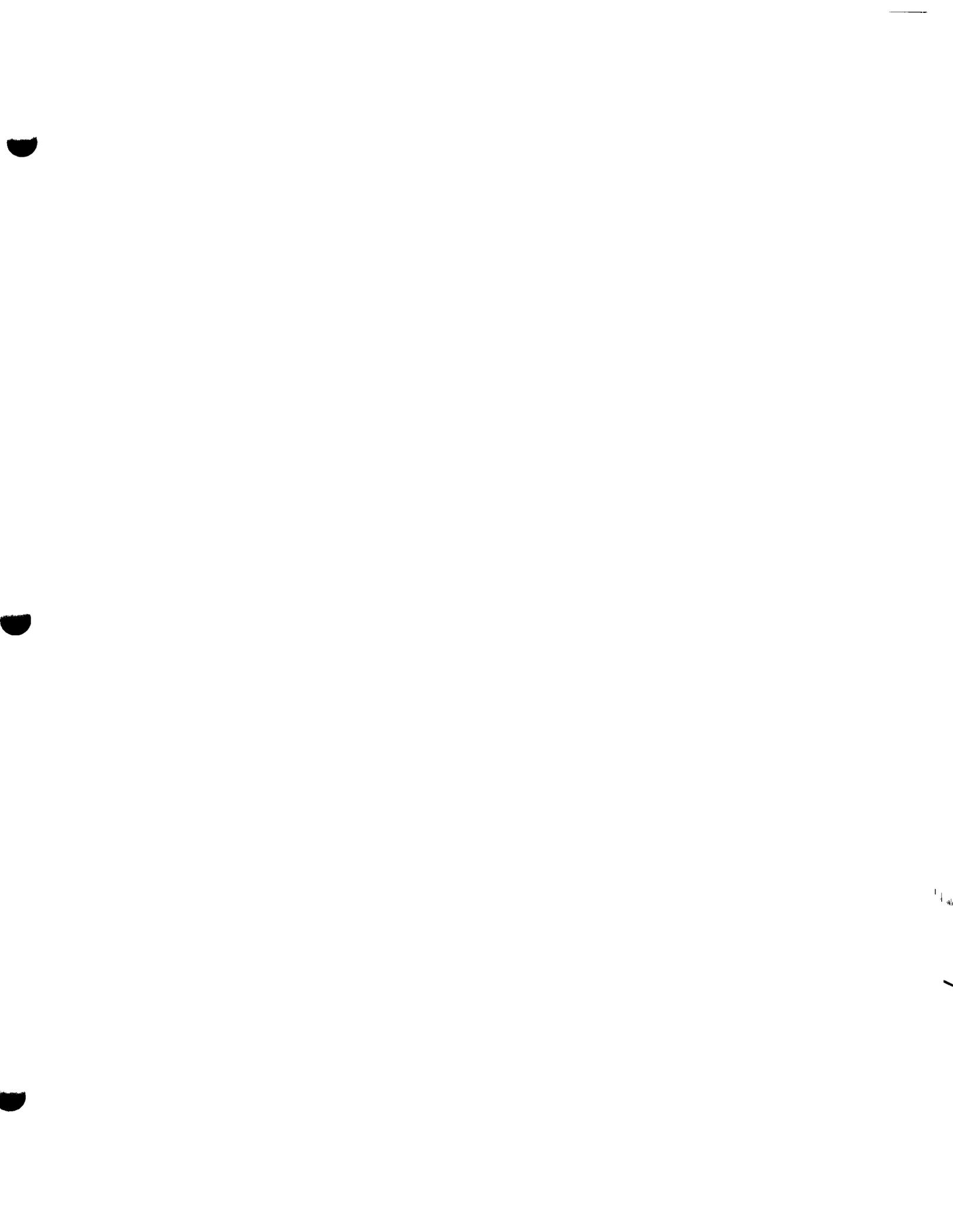
other centers, and there will be a brain drain out of State on UTEP engineer graduates.

5. **Loss of Experience (Civil Service and Industry) Base:** USAADASCH has been directed over the past years to convert military instructors to Civil Service positions, and therefore NCO's and CWO's have retired and filled School slots. They have built homes and settled in El Paso, and they will not relocate to Ft Sill.
6. **Allied Infrastructure at Ft Bliss:** The German Air Force has recently announced that they will reduce their Tornado Jets at Alamogordo by 20%. In addition, the GAFADS has been at Ft Bliss since 1956, and yet they were not consulted or given warning of the proposed departure of the USADASCH and Center under BRAC. They have invested millions of dollars in brick and mortar, as well as technology infrastructure, at Ft Bliss.
7. **History/Lineage at Ft Bliss:** Over 65 years of tradition and lineage for Air Defense at Ft Bliss doesn't lend itself to statistical analysis, but it is a major factor in the minds of ADA Soldiers and Retirees, who cherish their proud service to this post and its community
8. **Home Basing makes sense:** In 1997, ADA formed an "Air Defense Center of Excellence", which brought all ADA Brigades to Ft Bliss to achieve synergy of effort. Not only was quality of life improved for our soldiers (who are subject to frequent deployments overseas) and their families, but it also achieved cost savings in logistics (parts, fabrication, and repairs), operations, and readiness.

If this decision to Move Air Defense to Ft Sill does not save money, impairs operational effectiveness, hurts ADA's ability to use ranges and maintain their training proficiency, results in the loss of critical Technology and Experience bases, disrupts and adds turbulence to the Allied training base, and dismantles the proud History and Lineage of the ADA command structure.....

**THEN WHY NOT CANCEL PLANS TO MOVE FT BLISS??**

 MG, USA Ret



CRITERIA SEVEN EVALUATION TOOL				Risk Evaluation
Attribute	Losing Installation	Gaining Installation	FORT SILL	HIGH
	FORT BLISS			Attribute Change
Child Care				SUSTAIN
Housing				DECLINE
Cost of Living				IMPROVE
Education				DECLINE
Employment				IMPROVE
Medical Health				DECLINE
Safety				DECLINE
Population Center				DECLINE
Transportation				SUSTAIN
Utilities				DECLINE

# CRITERIA SEVEN EVALUATION TOOL

	Lossing Installation	Gaining Installation	Risk Evaluation
	FORT HOOD	FORT BLISS	<b>LOW</b>
<b>Attribute</b>			<b>Attribute Change</b>
Child Care			SUSTAIN
Housing			IMPROVE
Cost of Living	2		SUSTAIN
Education			SUSTAIN
Employment	2		DECLINE
Medical Health			IMPROVE
Safety			IMPROVE
Population Center	2		IMPROVE
Transportation			SUSTAIN
Utilities			SUSTAIN

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*Published November 2004*

# **ACCRA COST OF LIVING INDEX**

*Comparative Data for 324 Urban Areas*

**Section 1: Urban Area Index Data**

**Section 2: Average Prices**

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**ABOUT THE INDEX:** ACCRA produces the *ACCRA Cost of Living Index* to provide a useful and reasonably accurate measure of living cost differences among urban areas. Items on which the Index is based have been carefully chosen to reflect the different categories of consumer expenditures. Weights assigned to relative costs are based on government survey data on expenditure patterns for professional and executive households. All items are priced in each place at a specified time and according to standardized specifications.

**INTERPRETING THE INDEX:** The *ACCRA Cost of Living Index* measures *relative* price levels for consumer goods and services in participating areas. The average for all participating places, both metropolitan and nonmetropolitan, equals 100, and each participant's index is read as a *percentage* of the average for all places.

**The Index does not measure inflation** (price change over time). Because each quarterly report is a separate comparison of prices at a single point in time, and because both the number and the mix of participants changes from one quarter to the next, **index data from different quarters cannot be compared.** For inflation data, contact the US Bureau of Labor Statistics (BLS) at [www.bls.gov](http://www.bls.gov).

The *Index* reflects cost differentials for professional and executive households in the top income quintile. Operationally, this standard of living is set by the weighting structure. Homeownership costs, for ex-

ample, are more heavily weighted than they would be if the *Index* reflected a clerical worker standard of living or average costs for all urban consumers. (Weights for component indexes appear above column headings—e.g., 13% for Grocery Items.)

Because the number of items priced is limited, it is not valid to treat percentage differences between areas as exact measures. Since judgment sampling is used in this survey, no confidence interval can be determined. Small differences, however, should not be construed as significant—or even as indicating correctly which area is the more expensive.

**PARTICIPATING AREAS:** Areas included in this survey are those where chambers of commerce or similar organizations have volunteered to participate. The number of respondents varies from quarter to quarter, and ACCRA makes a continuing effort to expand coverage of metropolitan areas. Any metropolitan area not represented in this report is absent because local organizations have opted not to collect data. **ACCRA has no data for areas that do not appear in this report.**

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**EXCLUSION OF TAXES:** ACCRA is fully cognizant that state and local taxes are an integral part of the cost of living, and that tax burdens vary widely not only among states and metropolitan areas, but even within metropolitan areas. Due to the multiplicity of state and local taxes, taxing jurisdictions, and assessment procedures, it is not feasible to calculate local tax burdens reliably. ACCRA has opted to produce an index that adequately measures differences in goods and services costs, rather than to produce an inaccurate measure that attempts to incorporate taxes levied on real and intangible property, retail purchases, and income.

**TWO SECTIONS OF QUARTERLY DATA:** The *ACCRA Cost of Living Index* presents data in two sections:

**URBAN AREA INDEX DATA:** This section shows each place's Composite Index and six component indexes—Grocery Items, Housing, Utilities, Transportation, Health Care, and Miscellaneous Goods and Services. Places are listed by state/province; provinces follow state listings. Within each state/province, places appear alphabetically within metropolitan area, metropolitan division or micropolitan area in the

U.S., and Census Metropolitan Area in Canada. ACCRA has adopted the new metro and micro area definitions announced by the US Office of Management and Budget (OMB) on June 6, 2003.

Data users who opt to use suburban places as surrogates for central cities should be aware that living cost differences can exist within large metropolitan areas. This caution is particularly important where there are substantial differences in housing costs and/or utility rates.

**AVERAGE PRICES:** The average price reported for each item in the survey is shown for each participating place. Places are listed alphabetically within state or province, without respect to metropolitan or micropolitan status. Canadian prices are reported in U.S. dollars, using the exchange rate in effect on the Friday during the pricing period. After the final state/province listing, this section presents the median, average, standard deviation, and range for each item.

**DATA REQUESTS:** Please use our website or direct requests for data to your local chamber of commerce or public library.

**OTHER QUESTIONS:** Please direct all questions except data requests to ACCRA at the mailing address shown on the previous page, voice 703-522-4980, fax 703-522-4985, or [www.accra.org](http://www.accra.org) ("Feedback").

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#### HOW TO USE THE ACCRA COST OF LIVING INDEX

Assume that City A has a composite index of 98.3 and City B has a composite index of 128.5. If you live in City A and are contemplating a job offer in City B, how much of an increase in your after-taxes income is needed to maintain your present lifestyle?

$$100 * [(City B - City A) / City A] = 100 * [(128.5 - 98.3) / 98.3] = 100 * (.3072) = 30.72\%, \text{ or about a 31\% increase}$$

Conversely, if you are considering a move from City B to City A, how much of a cut in after-taxes income can you sustain without reducing your present lifestyle?

$$100 * [(City A - City B) / City B] = 100 * [(98.3 - 128.5) / 128.5] = 100 * (-.2350) = -23.5\%, \text{ or about a 24\% reduction}$$

ACCRA COST OF LIVING INDEX THIRD QUARTER 2004

METRO/MICRO URBAN AREA AND STATE	100% COMPOSITE INDEX	13% GROCERY ITEMS	30% HOUSING	9% UTILITIES	9% TRANS- PORTATION	4% HEALTH CARE	35% MISC. GOODS AND SERVICES
Dayton OH Metro							
Dayton OH	93.5	94.3	82.3	97.9	97.4	95.9	100.4
Troy-Miami County OH	101.4	106.6	101.6	107.2	106.0	85.8	98.4
Findlay OH Micro							
Findlay OH	101.3	107.8	98.5	98.7	103.1	83.3	103.5
Lima OH Metro							
Lima OH	97.0	109.6	83.1	106.5	102.0	87.7	101.6
Toledo OH Metro							
Toledo OH	95.4	104.9	81.3	114.4	99.9	94.9	98.0
Youngstown-Warren-Boardman OH-PA Metro							
Youngstown-Warren OH	91.5	98.7	84.9	107.1	95.2	75.8	91.2
Ardmore OK Micro							
Ardmore OK	93.3	90.6	93.3	91.9	93.1	99.5	94.1
Bartlesville OK Micro							
Bartlesville OK	94.4	100.3	87.0	82.5	95.0	95.7	101.3
Enid OK Micro							
Enid OK	91.5	92.2	82.9	106.3	103.8	90.3	91.7
Lawton OK Metro							
Lawton OK	89.9	97.1	74.1	88.6	112.0	86.3	95.8
McAlester OK Micro							
McAlester OK	80.2	87.6	70.9	87.4	76.2	91.9	83.2
Muskogee OK Micro							
Muskogee OK	90.3	100.5	81.6	108.6	79.0	93.3	91.9
Oklahoma City OK Metro							
Edmond OK	92.6	87.5	86.0	93.1	96.8	107.1	97.3
Oklahoma City OK	91.8	90.5	82.7	96.4	99.0	102.8	95.8
Stillwater OK Micro							
Stillwater OK	90.8	97.0	80.4	95.8	93.7	96.0	94.7
Tulsa OK Metro							
Tulsa OK	93.6	91.8	79.2	97.5	102.7	98.8	102.6
Non-Metro/Micro							
Pryor Creek OK	86.1	93.2	73.5	84.1	84.6	86.9	95.0
Coos Bay OR Micro							
Coos County OR	107.2	111.0	117.3	95.2	118.5	121.8	95.5
Klamath Falls OR Micro							
Klamath Falls OR	97.9	116.1	81.9	99.4	103.7	109.0	101.7
Portland-Vancouver-Beaverton OR-WA Metro							
Portland OR	113.2	120.5	110.1	120.4	109.3	137.6	109.6
Non-Metro/Micro							
Lincoln County OR	107.7	114.4	115.8	86.1	111.7	122.1	101.2
Harrisburg-Carlisle PA Metro							
Harrisburg PA	98.0	96.1	92.3	96.9	99.9	91.8	103.9
Indiana PA Micro							
Indiana County PA	91.3	91.1	88.0	101.7	89.2	80.0	93.4
Johnstown PA Metro							
Johnstown PA	91.6	91.3	86.2	95.3	97.8	74.7	95.7
Lebanon PA Metro							
Lebanon PA	103.5	95.6	104.4	108.2	95.1	74.5	110.0
Pittsburgh PA Metro							
Pittsburgh PA	94.9	98.1	88.1	89.3	115.2	84.1	97.2

ACCRA COST OF LIVING INDEX THIRD QUARTER 2004

METRO/MICRO URBAN AREA AND STATE	100% COMPOSITE INDEX	13% GROCERY ITEMS	30% HOUSING	9% UTILITIES	9% TRANS- PORTATION	4% HEALTH CARE	35% MISC. GOODS AND SERVICES
Abilene TX Metro							
Abilene TX	87.7	84.7	79.0	88.7	96.8	85.2	93.9
Amarillo TX Metro							
Amarillo TX	86.8	87.2	83.6	90.9	89.2	88.0	87.7
Austin-Round Rock TX Metro							
San Marcos TX	94.1	77.8	86.5	88.3	100.2	97.5	106.0
Beaumont-Port Arthur TX Metro							
Beaumont TX	89.1	94.6	74.8	105.7	102.3	89.3	91.5
Brownsville-Harlingen TX Metro							
Harlingen TX	87.0	74.7	78.1	87.7	102.4	105.7	93.1
Corpus Christi TX Metro							
Corpus Christi TX	85.4	75.9	75.5	102.0	88.7	87.4	92.1
Dallas-Plano-Irving TX Metro Div.							
Dallas TX	93.9	97.1	80.0	98.6	106.4	97.4	99.7
Plano TX	94.9	85.4	84.3	105.8	108.4	110.9	99.5
Del Rio TX Micro							
Del Rio TX	88.4	80.7	66.7	139.2	95.2	99.6	93.9
El Paso TX Metro							
El Paso TX	90.6	103.2	80.3	98.9	93.7	103.0	90.3
Fort Worth-Arlington TX Metro Div.							
Arlington TX	92.1	90.3	83.2	101.7	98.1	94.7	96.0
Fort Worth TX	92.4	99.8	79.6	100.6	97.3	99.7	96.4
Weatherford TX	88.8	85.1	77.5	84.6	93.3	90.9	99.4
Houston-Baytown-Sugar Land TX Metro							
Brazoria TX	91.1	89.1	84.4	96.2	96.1	94.4	94.5
Conroe TX	88.5	83.4	82.6	83.5	98.7	104.6	92.2
Houston TX	90.3	86.1	75.9	100.3	100.8	104.3	97.2
Killeen-Temple-Fort Hood TX Metro							
Temple TX	84.8	79.9	74.1	94.9	90.5	85.4	91.5
Laredo TX Metro							
Laredo TX	83.8	80.3	81.8	81.3	94.9	98.3	82.8
Longview TX Metro							
Longview TX	88.9	85.5	82.9	75.6	92.7	97.6	96.9
Lubbock TX Metro							
Lubbock TX	87.1	86.5	78.3	81.3	84.8	105.8	94.8
McAllen-Edinburg-Pharr TX Metro							
McAllen TX	85.8	80.8	72.6	93.9	90.2	84.9	95.7
Midland TX Metro							
Midland TX	85.4	82.9	75.0	79.8	97.6	96.8	92.2
Odessa TX Metro							
Odessa TX	87.7	89.4	78.6	78.9	97.0	99.2	93.3
Palestine TX Micro							
Palestine-Anderson County TX	82.8	88.1	64.7	92.3	91.2	81.5	91.9
Paris TX Micro							
Paris TX	86.8	85.4	80.0	101.2	92.4	98.3	86.7
San Angelo TX Metro							
San Angelo TX	88.3	86.7	75.8	88.0	95.8	92.3	97.3
San Antonio TX Metro							
San Antonio TX	95.2	82.7	96.9	75.9	98.4	104.2	101.4
Seguin TX	89.4	80.9	79.9	90.2	87.0	89.1	101.2
Sherman-Denison TX Metro							
Sherman-Denison TX	90.7	89.1	77.9	103.9	94.1	103.2	96.5
Texarkana TX-Texarkana AR Metro							
Texarkana TX-AR	92.5	95.9	85.7	85.8	91.1	92.9	99.1

## Responses to Congressman Reyes Net Fires Center Questions

**Q1.** On page four, there is a mention of the "Service Chiefs Agreed with Establishing a Center of Excellence for Joint Fires and Effects." Is it possible to get a copy of that memo or order?

**Q2.** On page four there is a reference to the JFCOM's "United Position on Joint Fires and Effects." What official JFCOM unified position did Fort Sill use? Is there a memo, directive?

**Q3.** On page five, there is reference to an Army Chief of Staff designating in Mar 05 Fort Sill as the Army's Center of Excellence for Joint Fires and Effects." Would like a copy of document CSA used directing this action.

**A1-3.** The minutes of the Service Chief Forums are For Official Use Only (FOUO) and not for public release. The Service Chiefs have agreed among themselves the need to establish a capability/forum to discuss, investigate, and resolve Joint fires and effects issues. The verbal requirement given to each respective Service and staff was to develop such a capability within each Service and the need to develop an overarching Joint Fires and Effects Center of Excellence (COE). To date, the Chief of Staff of the Army has verbally recognized Fort Sill, OK, as the Army's Center of Excellence for Joint Fires and Effects. The other three Services are currently in the process of finalizing their respective COEs. Once all four Services have designated their COE then a Joint Council of Colonels will be assigned the responsibility to develop an official concept of operations (CONOPS) to be formally approved by the Service Chiefs regarding the operation of the Joint Fires and Effects COE.

**Q4.** On page eight, is it 100% certain that the Basic Officer Leadership course is included in the items that OSD recommended be moved to Fort Sill?

**A4.** Our understanding of the Cobra data is that BOLC II would be a discretionary move and not part of BRAC. The loads for BOLC were not included in the Cobra numbers. In addition, the current TRADOC discretionary move recommendation is to move one of the two Ft Bliss companies to Ft Sill giving Ft Sill 3 BOLC II Companies. Over all three companies would be at FT Benning, Ft Sill, and two companies at Ft LeonardWood.

**Q5.** On page nine, why would the officer courses be kept separate if the goal is to integrate all of the fires functions?

**A5.** BRAC guidance is to **consolidate** Net Fires training and doctrine at a single location. The Net Fires concept is to **link** the ADA and FA through an **integrated application** of lethal and non-lethal fires and effects. The training and development ADA and FA Officer training will remain separate to ensure that both ADA and FA officers attain appropriate levels of proficiency within their respective branches to support the Joint Commander. In 1967 the Army decided that cross training of ADA and FA officers resulted in insufficient basic skills in their branches which negatively

impacted field commanders in Vietnam. The following is an executive summary of the 1967 Artillery Branch Study which abolished the practice of cross training ADA and FA officers.

**1967 Artillery Branch Study:** In 1950 Congress abolished the Coast Artillery, and the Army subsequently transferred the Coast Artillery's antiaircraft artillery mission to the Field Artillery and renamed the Field Artillery to The Artillery reflect the merger of two different artillery branches. The Army also continued the practice that had begun in 1947 of cross training officers. Lieutenants and captains received field artillery and antiaircraft training but never became really proficient in either. The Army supported cross training to provide flexibility to shift officers from one branch to other. This was based upon World War II where antiaircraft officers were required early on, but once the Allies had won air superiority, the Army started shifting antiaircraft artillery officers to field artillery positions. Interestingly, pre-war training prohibited this flexibility with this in mind, the Army valued flexibility of moving artillery officers between field artillery and antiaircraft artillery following World War II.

Because of the growing complexity of equipment and differing techniques, the Continental Army Command created basic courses for the two artilleries in 1957 but retained the integrated advanced course. Because of funding shortages, the Continental Army Command reverted to integrated basic course for lieutenants and advanced courses for captains in 1958. In 1962 the Command reintroduced the separate basic courses but the drive for flexibility in assigning officers caused the command to retain the integrated advanced course for captains.

In 1963 Continental Army Command explored the desirability of dividing the artillery into two branches. The Artillery School at Fort Sill and the ADA School at Fort Bliss recommended separation because of the difficulty of cross training and the growing differences between FA and ADA, but the Army did not take any action because it still wanted the flexibility to assign officers between the two artilleries.

The demand for proficient officers in Vietnam in 1965-1966 finally caused the Army and the Continental Army Command to reorganize the Artillery. The one-year tour of duty, little time for on-the-job training in Vietnam, and combat in Vietnam required the officer to arrive as a competent Field Artillery officer, but training had produced a hybrid field artillery and ADA officer with little proficiency in either branch. Army commanders did not have the time to train incoming lieutenants and especially captains who had insufficient basic skills in their branches because of the cross training.

This led to the Artillery Branch Study of 1966-1967. The study recommended separating the two artillery branches and ending the practice of integrated (cross) training. Lieutenants and captains had to be proficient and not have passing skills which cross training had produced. The Army recognized that proficiency outweighed flexibility, separated the two artilleries in January 1969, and abolished the practice of cross training.

In addition, BRAC guidance specifically references advancing the Maneuver Support Center (MANSCEN) Model which supports three separate schools (Engineer, Military Police, and Chemical).

**Q6.** Also on page nine, we have some concerns about combining the FA and ADA combat developments. By folding the ADA mission into the FA mission, how will the command work to ensure that the existing structure won't dominate the incoming mission?

**A6.** The intent is to place the ADA and FA Combat Developments (CD) under the Fires Future Group to facilitate the linking of both branch's CD efforts. The ADA and FA will retain parallel combat development tracks to ensure both ADA and FA issues are treated with equal importance. However, the integration of ADA and FA radars under the umbrella of a TSM Sensors and the integration of the ADA's Intercept Task Force and the FA's Counterstrike Task Force under the umbrella of a TSM Counter Rockets, Artillery, and Mortar are being considered.

**Q7.** Is there mention of the net fires concept in Army doctrine? Please provide any additional information (i.e. articles from journals, magazines, etc) that gives a little more narrative than Power Point slides

**A7.** Net Fires is an emerging concept. There is no Army doctrine for Net Fires. Attached is an article published in the FA Magazine in Sep-Oct 02 written by the Chief of Field Artillery that provides a brief description of Net Fires.

Subj: **From the Daily Oklahoman**  
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Hi All! By now I assume that everyone has seen this article, but I wanted to point out that the reporter did good work digging through all the minutes from the Army working group meetings.

I do believe that he overstated the support of the cross-service working group on education and training. According to their minutes, they did not conduct a thorough analysis of the issue and noted that the "E&T JCSG could not substantiate military value or capacity analysis since Army-data was used to perform these analyses. Net Fires Center, Realign Aviation Logistics School, Maneuver Center, and Combat Service Center."

Also, it is probably overstating the support of the BRAC group for the larger Net Fires concept (multi-platform, joint-service). The Net Fires Center in the context of the BRAC decision is really just a short-hand term for the collocation of ADA and FA, and does not reflect broader approval of the Net Fires doctrine, which is currently working its way through Army channels and joint channels.

Daily Oklahoman  
June 20, 2005

## Fort Sill Scenario Ominous

By Chris Casteel, The Oklahoman

WASHINGTON - Last month, the Lawton area celebrated the Defense Department's recommendation to give Fort Sill a major training mission from another fort, along with more than 3,600 jobs.

But just a few months before, key Pentagon officials meeting in the Army secretary's office were looking at a scenario that likely wouldn't have been celebrated in southwest Oklahoma.

That plan would have moved the field artillery school at Fort Sill to Fort Bliss in El Paso, Texas, and relocated more than 2,000 jobs and about 7,700 students. One possibility discussed under that scenario was closing Fort Sill.

However, after a few weeks of looking at the costs and other issues involving Fort Bliss and Fort Sill, Pentagon officials began working the scenario that would ultimately be adopted by them and others at the Defense Department: moving the Air Defense Artillery school at Fort Bliss to Fort Sill.

Deliberations by Defense Department officials involved in the base realignment and closure process – commonly referred to as BRAC – were documented in various ways as the process unfolded.

Minutes were taken at meetings, computer printouts were generated and colorful charts and graphs were drawn up to illustrate proposals under consideration.

All those documents are being made public as the law authorizing a round of base closures requires. The Defense Base Closure and Realignment Commission can use the data in the documents and the description of discussions as it reviews the Pentagon's recommendations.

After base closure rounds in the 1990s, community leaders where military installations survived took note. They used the data made public in the process to work on improvements -- things that would raise the "military value" of their installation.

### **From Sill to Bliss**

Two main Pentagon groups examined the proposal to combine field artillery training and air defense artillery training at one base.

The primary group was the U.S. Army's Senior Review Group, made up of senior military and civilian leaders. The other was the Education and Training Joint Cross-Service Group.

Pentagon officials began meeting and developing BRAC strategy two years ago, but proposals involving specific bases were scrubbed up until the final weeks before the list of closures and realignments was released on May 13.

It was at a meeting of the Army Senior Review Group on Nov. 18 that the scenario was discussed to move the field artillery school at Fort Sill to Fort Bliss.

The idea was to consolidate artillery training at one base to promote "training effectiveness and functional efficiencies."

Fort Bliss had the available training ranges and space and it was the top-ranked Army base in terms of military value. Fort Sill was the 20th-ranked base in military value, out of nearly 100 major Army installations.

The top Army officials looked at two ways of moving the school out of Fort Sill -- one would leave the post open and the other would close it.

The documents from that Nov. 18 meeting indicate that closing Fort Sill would have been far more expensive than leaving it open, and there was the added negative factor of closing a post with high military value.

The other potential conflict in moving the school from Fort Sill to Fort Bliss reflected in the documents was that the Army had other scenarios that involved Fort Bliss, primarily the movement of thousands of troops from overseas bases to the El Paso post.

At a meeting on Nov. 30, the Army's Senior Review Group suggested that a separate group, the Army Basing Study Group, examine whether an aviation brigade should be stationed at Fort Sill.

Also at that meeting, the Army senior officials discussed the idea of moving brigades from Germany to Fort Bliss. The scenario offered the chance to close several installations in Germany and maximize the use of excess training land capacity at Fort Bliss. One of the potential conflicts, though, was their other proposal to move the field artillery school from Fort Sill.

The question was whether Fort Bliss could absorb that much new activity and influx of people.

### **From Bliss to Sill**

At the Dec. 14 meeting, senior Army officials had a list of discussion issues. Among the questions: "Could the Army move the Air Defense Artillery school to Fort Sill to relieve space at Fort Bliss?"

The positive points presented were:

It would still promote training effectiveness and functional efficiencies.

It had the lowest one-time cost among all the other alternatives.

It would create space at Fort Bliss for additional activities.

There was a recommendation, accepted by the group, that the primary proposal should then become moving the artillery school at Fort Bliss to Fort Sill and combining all the artillery training in Oklahoma rather than Texas.

At a meeting on Jan. 5, the Army senior officials discussed details about moving the artillery school to Fort Sill. It would involve about 1,421 military personnel, 223 civilians and 1,345 students. The 32nd Army Air and Missile Defense Command, it was determined, did not need to move from Fort Bliss with the school. It could stay in El Paso.

The Army Basing Study Group recommended approval of creating the Net Fires Center at Fort Sill, and the proposal went on to the Joint Cross Service Group for Education and Training, which took a detailed look in early March, according to Pentagon documents.

Though Fort Bliss had the highest military value ranking out of 99 major Army bases, and Fort Sill had the 20th, it was the military's judgment that overall military value wouldn't be adversely affected because the proposal involved two bases in the top quarter of the Army's portfolio, one document states.

In March, the Education and Training group approved the Net Fires Center at Fort Sill as one of the recommendations it would forward up the chain of command, which ultimately ended with Defense Secretary Donald Rumsfeld.

And on May 13, the secretary made the recommendation to consolidate the Air Defense Artillery school with the Field Artillery school at Fort Sill, to form a Net Fires Center.

At a hearing before the base closure commission May 18, Gen. Peter J. Schoomaker, the Army Chief of Staff, testified that combining the activities at Fort Sill "just makes sense" because it is representative of what the Army is doing to transform itself for the future.

"What we're really doing is organizing the function," he said.

Army Secretary Francis J. Harvey, responding to a question about some of the moves among the military installations, including Fort Bliss and Fort Sill, said, "So it looks a little bit like we're doing this, and we're doing that. But behind that, we've given it a lot of thought."

**Julie Turner Merberg**

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To receive e-mail newsletters from Congressman Reyes, please visit his website: [www.house.gov/reyes](http://www.house.gov/reyes).

**Subj:** From today's Denton Chronicle Record  
**Date:** 6/20/2005 3:16:27 PM Mountain Daylight Time  
**From:** Julie.Merberg@mail.house.gov  
**To:** bcook@elpasoredco.org, armour@cypressintl.com, dmargo@jdw-insurance.com, odcsrda@aol.com, Perry.Finney2@mail.house.gov, salvador.payan@mail.house.gov

## Army groups considered closing Fort Sill

06/20/2005

Associated Press

Pentagon officials considered moving the artillery school from Fort Sill to Texas along with more than 2,000 jobs and about 7,700 students, according to records from the Base Closure and Realignment Commission.

Under the scenario, the artillery school would have been moved to Fort Bliss in El Paso, Texas, The Oklahoman reported in Monday editions. Another scenario included the closure of the southwest Oklahoma base.

Instead, BRAC officials in May recommended Fort Sill receive a major training mission from another facility, along with more than 3,600 additional jobs. The commission will review the Pentagon's list and send its recommendations to President Bush, who must give Congress a list by Sept. 23. Congress then has 45 days to reject it before it becomes official.

Despite losing the artillery training to Oklahoma, Fort Bliss still stood to gain about 11,500 military and civilian jobs from other areas from the commission's recommendations.

According to records, two main Pentagon groups - the Army's Senior Review Group and the Education and Joint Cross-Service Group - examined the proposal to combine field artillery training and air defense artillery training at one base.

The Senior Review Group at a Nov. 18 meeting discussed moving the field artillery school at Fort Sill to Fort Bliss to consolidate artillery training at one base to promote "training effectiveness and functional efficiencies." Officials considered options that would keep Fort Sill open or close it.

Documents from the meeting indicate that closing Fort Sill would have been far more expensive than leaving it open, and there was the added negative factor of closing a post with high military value. Fort Sill ranked 20th out of 99 major Army installations in terms of military value, while Fort Bliss was No. 1.

The plan also created potential conflict with scenarios in which thousands of troops would be moved from overseas bases to Fort Bliss and created the question of whether Fort Bliss could absorb that much new activity and influx of people.

Instead, at a Dec. 14 meeting, senior Army officials discussed combining all artillery training at Fort Sill. Officials decided such a move would still promote training effectiveness and functional efficiencies and create space at Fort Bliss for additional activities while incurring the lowest one-time cost among all the other alternatives.

At the meeting, the group accepted a recommendation to propose relocating the artillery school to Fort Sill. It then passed the recommendation on to the education and training group, which also gave its approval.

Gen. Peter J. Schoomaker, the Army Chief of Staff, testified at a base closure commission hearing May Monday, June 20, 2005 America Online: ODCSRDA



# Net Fires Center (Bliss)



<p style="text-align: center;"><b>Scenario</b></p> <ul style="list-style-type: none"> <li>▪ Moves FA center and school (Sill) to Bliss (with the ADA center and school)</li> <li>▪ Realigns Fort Sill</li> <li>▪ MVI: Fort Bliss (1), Fort Sill (20), &amp; White Sands MR (10)</li> </ul>	<p style="text-align: center;"><b>Drivers/Assumptions</b></p> <ul style="list-style-type: none"> <li>▪ Principles:             <ul style="list-style-type: none"> <li>▪ Recruit and Train</li> </ul> </li> <li>▪ Transformational Options:             <ul style="list-style-type: none"> <li>▪ Collocate or consolidate multiple branch schools and centers on single locations</li> <li>▪ Collocate institutional training, MTOE units, RDTE organizations and other TDA units in large numbers on single installations to support force stabilization and enhance training</li> </ul> </li> </ul>
<p style="text-align: center;"><b>Justification/Impact</b></p> <ul style="list-style-type: none"> <li>▪ Consolidates Net Fires training and doctrine development at a single location, promoting training effectiveness and functional efficiencies</li> <li>▪ TRADOC supported</li> <li>▪ Best NPV</li> <li>▪ Creates space at Fort Sill for additional activities</li> </ul>	<p style="text-align: center;"><b>Potential Conflicts</b></p> <ul style="list-style-type: none"> <li>▪ Multiple proposals (Operational and Institutional Armies &amp; JCSGs) adding activities to Ft. Bliss             <ul style="list-style-type: none"> <li>• Bliss Enhanced(3/4 HVY, 1 Fires, 1 Avn, 1 Sust, 1 ME UA)</li> </ul> </li> </ul>

*Transforming Through Base Realignment and Closure*



# Net Fires Center (Bliss)



COBRA	Sill closes	Environmental
1. One-Time Cost:	\$864.5M	<ul style="list-style-type: none"> <li>• Air Quality                             <ul style="list-style-type: none"> <li>• Nonattainment for Particulate Matter (PM10), Ozone, &amp; Carbon Monoxide</li> <li>• Personnel &amp; msn increase requires New Source Review &amp; permit mods</li> </ul> </li> <li>• Close Sill –                             <ul style="list-style-type: none"> <li>• DERA restoration sites - \$2.1M CTC</li> <li>• 203 ranges (est) - \$189M - \$689M</li> <li>• Positive impacts to Air, Noise, Waste</li> </ul> </li> </ul>
2. MILCON:	\$657.7M	
3. NPV / NPV-MiL Pay: -S2,884.8M/ -662.2M		
4. Payback Yrs/Break Even Yr: 3 / 2011		
5. Steady State/ - Mil Pay: -\$288.5M/ -113.5M		
6. Mil/Civ Reductions: 1,955 /1,222		
7. Mil/Civ/Stu Relocated: 8,818/ 1,107/ 7,688		
Economic	Community	
<ul style="list-style-type: none"> <li>▪ Direct/Indirect:</li> <li>▪ Employment Base:</li> </ul>	<ul style="list-style-type: none"> <li>▪ Overall risk evaluation: Low</li> </ul>	

• Closes a high MV installation  
 • Relocation of 4 Artillery Brigades  
 • High One-Time Cost

## **Talking Points**

### **Why a Patriot Brigade cannot "Train as they Fight" while stationed at Fort Sill, OK.**

Based on initial mining data accumulated on Fort Sill capabilities to absorb a Patriot Brigade, there exist several concerns that a Patriot Brigade can effectively train as they fight in a terrain limited environment.

The Operational Requirements Document (ORD) for PAC III dictate that a Patriot Battery be assigned a 40 Square Kilometer Perimeter Defense Design. The current training range at Fort Sill is approximately 40 Kilometers wide by 10 kilometers deep. Although simplified math would bring one to the conclusion that the range can accommodate ten firing batteries, a cursory look at the Range map shows that only a fraction of the range can be utilized for maneuver units. The numerous and extensive impact areas throughout the Fort Sill Range seriously hamper a doctrinally correct emplacement of firing units. In fact, a Patriot Battalion would experience serious degradation in the available training space of the Fort Sill Range.

Although not yet verified, as we are awaiting formal requests for Range Frequency availability and limitations, there appear to be some serious Range Fan limitation questions. The Fort Sill Range is characterized with a mountain range which spans east to west on the northwest border. This mountain range makes it impossible to conduct a tactically and doctrinally correct orientation from the southern border of the range; which eliminates use of one-third of the range for Air Breathing Threat (ABT) missions. The second two-third of the range, to the east, has frequency management limitations due to the locations and proximity of the military Air Field and Lawton Civilian Airport. Currently the Patriot units on Fort Bliss Garrison, are not permitted to radiate due to their proximity to the El Paso International Airport, but are able to move to Tobin Wells (a 10 minute road march) and radiate with the proper orientation north.

As part of the Lesson Learned from Desert Storm/Desert Shield and Operation Iraqi Freedom, Patriot units must be able to maneuver and travel at great distances in order to protect the force. The success of Patriot in the past operations was its ability to adjust coverage and keep up with its maneuver units. The Range on Fort Sill simply does not lend an environment of maneuver for Patriot Firing Batteries. Due to the extensive impact areas, mainly in the middle of the range, Patriot Firing Batteries essentially can only emplace on the outside edges of the Range. Moreover, the Patriot Communications Relay Groups (CRG) are not afforded the opportunity to test their communications profiles. The unclassified maximum range of the CRG is 30 KM, with a optimum range of 15-20 KM. On a Training Range of only 10 x 40 kilometers, there certainly is a degradation of training capability.

Not all of the ADA battle is fought at the Brigade and below levels. Theater ADA requirements are quite complex for airspace control, coalition planning, and Joint Service coordination. There are a number of permanently constructed Training Devices at Fort Bliss which assist in the training of Patriot planning and engagement crews. The Drive-

Number of PATRIOT Missiles fired annually in support of Lot Certification

Number of launchers in a battalion. Currently 8, will transition to 6 with the AMD battalion fielding.

Percent of the ADA force working on C-RAM effort. 1% approx 100 of the 9700 Air Defense officers, warrant officers and enlisted.

One minute statement covering "train as you fight" issues related to a FORSCOM Bde assigned to Sill.

PATRIOT Training is centered around battalion level exercises conducted at least twice annually. In the course of this exercise a Patriot Battery would conduct at least 2 tactical moves over the course of a 5 to 7 day exercise. There are 5 Patriot Batteries in a battalion plus a Battalion headquarters and maintenance company. There are also radio relay units that provide critical command and control communications to the battalion. A Patriot Brigade will also conduct a single exercise annually at brigade level in addition to the battalion level exercises.

The limited training area at Ft Sill will accommodate a battalion level FTX. What it will not provide is realistic "train as you fight" type training that is critical so that our warfighters are best trained to meet the rigors of the modern battlefield. This limitation will manifest itself in repetitive occupation of the same positions, exercise after exercise. For example, after spending the first 24 hours in an initial position, Battery A would "jump" to occupy a position that was previously occupied by Battery C during the first day of the FTX. Other batteries will be forced to occupy positions previously occupied by their sister units. Soldiers and leaders will quickly become so familiar with the available sites that the training value of a tactical move and the complexity of conducting a reconnaissance, selection and occupation of a position will be lost. The close proximity of units will not allow doctrinal dispersion of Patriot Radars and the radio relay units I mentioned previously might not have to move.

The Fort Bliss / McGregor Range complex does not impose those types of restrictions and even with the addition of 4 Brigade Combat teams, there is ample space for doctrinal deployment, tactical movement and an unlimited selection of possible battery and headquarters locations. In fact, having these maneuver units present at Fort Bliss enhances the realism of supporting a combined arms task force and maneuvering with that task force as many of our Patriot units have done in Desert Storm and Operation Iraqi Freedom.

Up Systems Training (DUST) Facility located on Tobin Wells is a one of a kind simulations trainer which can replicate a Brigade battle and provide ADA Integrated Missile Defense for exercises such as the US / Russian Federation Theater Missile Defense Exercise TMDX), Roving Sands, and future exercise schedules as part of the Joint national Training Capability (JNTC).

The Patriot Conduct of Fire Trainer (PCOFT) and Patriot Organizational Maintenance Trainer (POMT) also provide invaluable training opportunities for the Patriot Brigades stationed on Fort Bliss, but not available to any other CONUS Installations.

Finally, with the reduction in training dollars for Exercises, there is a propensity of Major Subordinate Commands stationed away from the main hub of functional commands to be left out of critical war-fighter exercises. While Korea and Europe have their own exercises in which ADA plays a significant role, the nucleus of Integrated Missile Defense Exercises take place at Fort Bliss. Roving Sands, Red Flag, and US/RF TMDX are major training events for joint integration and command and control. The fact that there are two ADA Brigades already at Fort Bliss may influence the decision to reduce the participation of an ADA Brigade stationed at Fort Sill.

# Plan to move Bliss school would affect Germans

By Chris Roberts

El Paso Times

The German air force has been training its air defense artillery soldiers at Fort Bliss for nearly four decades, and a proposal to move the post's Air Defense Artillery Center and School to Fort Sill, Okla., as part of a U.S. military realignment could mean changes for the German military as well.



Reyes

"There were no consultations as far as I know; therefore, we were surprised and I think Fort Bliss was surprised," said Col. Klaus H. Habersetzer, commander of the German Air Force Defense Center, which has about 130 staffers who train about 600 students each year.

Habersetzer said it was too early for the German military to discuss options because moving the Fort Bliss ADA school, which was proposed last month in the Pentagon's Base Realignment and Closure list, isn't finalized.

The proposal will be reviewed by an independent commission and then must receive the approval of President Bush, who has until November to make a decision.

"They should know we are appealing that proposal," said U.S. Rep. Silvestre Reyes, D-El Paso. "We're going to fight it."

Habersetzer said he relies on a close relationship with the ADA school and the ranges at Fort Bliss and White Sands Missile Range to accomplish his training and research missions.

About 100 of the students take

Please see German 2A

## German

Continued from 1A

maintenance courses at Fort Bliss' ADA school, and other high-level staff officers also train there, he said.

His soldiers go on maneuvers with U.S. units to conduct live-fire exercises, Habersetzer said. And the German air defense unit recently went through a realignment that added testing and evaluation

programs that require use of the ranges, he said.

"We are here because the ADA school is here," Habersetzer said. "That was the reason, in the 1950s, to come here."

Habersetzer said the German military invests "millions of dollars a year" in operational costs, which includes paychecks that are spent on food and rent in El Paso. Investments in the post infrastructure during the past decades are too numerous to easily be calculated, he said.

"We are bringing it to the atten-

tion of the BRAC commissioners," El Paso Mayor Joe Wardy said. "It's part of the case we're going to make to ... retain the ADA school. There's great concern."

Wardy said the German air force has invested more than money in Fort Bliss over the years.

"They have a tremendous attachment to this region and this post," Wardy said. "There is a great tradition of cooperation that would be very difficult to reconstruct somewhere else."

Habersetzer acknowledged that the German soldiers feel a connec-

tion to the community. None of them lives on post, which means they are neighbors to El Pasoans. And because German soldiers — officers in particular — must return to Fort Bliss for periodic training, it is likely they have spent more combined time at Fort Bliss than at any of their assignments in Germany.

"For the moment, I think the most important thing is to continue to fulfill our mission," Habersetzer said.

Chris Roberts may be reached at [chrisr@elpasotimes.com](mailto:chrisr@elpasotimes.com); 546-8136.

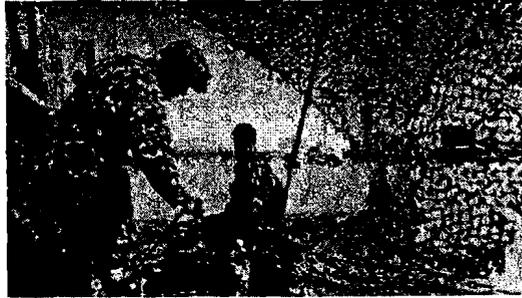
## Roving Sands '98 "Success;" All Training Objectives Met

The world's largest air defense training exercise, Roving Sands '98, recently completed its mission, safely and successfully.

More than 6,000 members of the U.S. Army, Air Force, Navy, and Marines, including members of the U.S. Army Reserve and National Guard, participated in the 14-day exercise that concluded the last week in April. Also joining the exercise were nearly 500 troops from German, Dutch, French, and British armed forces.

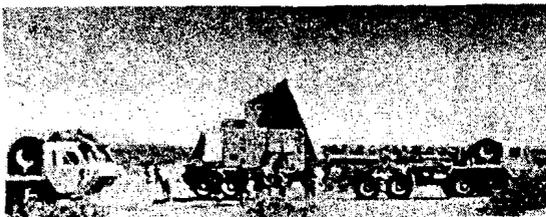


*The battle situation for Roving Sands consisted of protecting El Paso, designated as a seaport on a Persian Gulf-type coastline, from forces attacking from the north. Allied forces were asked to bring in reinforcements to the port to protect the surrounding friendly nation.*



The two-week exercise is designed to provide a robust and stressful training environment through the use of computer simulations representing air operations and missile threats combined with live air operations. For example, during Roving Sands, jet planes and helicopters flew near dug-in air defenders in the desert and made mock attacks so soldiers could judge whether they would have shot down the planes and missiles during an actual combat situation.

Six German Tornados flew "attack missions," and two T-38 Talons flew missions that simulated real SCUDs and other tactical ballistic missiles. In addition, six F-16s from the New Mexico National Guard, six F-16s from the 27th Fighter Wing at Cannon Air Force Base, New Mexico, and several Soviet-made attack helicopters and other aircraft played the role of aggressor in complex exercises designed to simulate attacks and penetrate friendly air defense systems.



"Our training is as realistic as possible. In fact, the lessons learned from previous Roving Sands exercises are being applied today," said Lt. Col. Cal Lovering.

Army Captain Susan Grosenheider appreciates the training. As a Theater High Altitude Area Defense battery commander with nine years in the military, she recognizes and appreciates the realistic atmosphere. Her one-word assessment for the desert training: "outstanding."



*Simulated engagements were waged in the desert areas north of El Paso and on McGregor Range. The mission of Roving Sands is to integrate Joint Tactical Air Operations, including Army, Air Force, Navy, and Marine Command and Control capabilities.*

An extensive and impressive computer network complemented the live-fly portions of Roving Sands exercise. "On our screens, we track all the friendly and enemy aircraft and enemy missiles," Lt. Col. Gary Agron said. "It's like the view of an air traffic controller, but with missiles and aircraft coming at you with the intent to destroy your forces."

A coast-to-coast network of military computer simulators linked air, land, and sea forces to create realistic battle conditions. "What happens is a Patriot missile battery links up electronically with the simulation center on Logan Heights and actually sees what threat is being depicted," Maj. Nick Liberatore said.



Personnel in the simulation center can make the threat approaching the Patriot missile operators look real. Thus, an air defender peering into his screen more than 20 miles in the desert north of the simulation center sees what actually looks like a real incoming missile. "It doesn't get any more realistic than this," noted one observer.

Roving Sands has been an integral component of our nation's military preparedness since 1989 when the training exercises began. Other than 1991, the year of Desert Storm, Fort Bliss and McGregor Range have hosted Roving Sands every year, pumping millions of dollars into the region's economy.



Although scaled down from recent years



due to events in Southwest Asia, this year's exercise is estimated to have brought approximately \$2.5 million to the area's economy through regional business contracts, leased equipment, and troops patronizing restaurants, stores, and entertainment locales. Next year's exercise is expected to consist of more than 20,000 troops, according to Maj. Gen. John Costello. That would mean at least \$6 million or more could be spent locally.

### Program Manager's Message. . .



.Welcome to the second McGregor Renewal Update. We received a number of kind comments about our first newsletter. Thanks! I hope you find this issue equally informative.

Our continued intent is to keep our readers informed about the renewal process and provide information about the range and the people responsible for its day-to-day operations.

In this issue, we feature an article and photo essay about Roving Sands, the world's largest military training exercise. From all indications, this year's exercise met all training objectives. Next year's Roving Sands will be even larger, with an expected 20,000 troops participating. There's an article about Lt. Col. Jack R. Frost, McGregor Range Commander, who talks about what it's like to manage the daily operations of the range and a staff of nearly 170 people. We also have an article about a recent nature tour of Castner Range conducted for nearly 70 fifth graders from La Union Elementary School in Doña Ana County. If you have any questions about the renewal or suggestions about the newsletter, please don't hesitate to contact me. I can be reached at 915-568-6708 or 1-888-248-8329; or by e-mail at [mcmgregor@emh10.bliss.army.mil](mailto:mcmgregor@emh10.bliss.army.mil).

### Fort Bliss Celebrates Its Sesquicentennial Year

Fort Bliss is celebrating its 150 years of existence with a variety of activities and special events scheduled throughout the year. The first United States Army Post in the El Paso area was ordered in response to the provisions of the Treaty of Guadalupe-Hildago, 1848, which formally ended the Mexican-American War.

General Order Number 58, Nov. 7, 1848, dispatched soldiers of the Third Regiment of Infantry to establish a post in New Mexico. Maj. Jefferson Van Horn arrived at the Pass of the North on Sept. 14, 1849, and established "The Post Opposite El Paso," referring to El Paso Del Norte (present day Juarez).

Following a series of five relocations, Fort Bliss found its permanent home on La Noria Mesa, land donated by the citizens of El Paso. The new post was completed in 1893. And it is from this location that Fort Bliss has supported United States efforts in two world wars and numerous other conflicts.



# Net Fires Center (Sill)

<p style="text-align: center;"><b>COBRA</b></p> <p>1. One-Time Cost: \$193.6M</p> <p>2. MILCON: \$144.9M</p> <p>3. NPV / NPV-Mil Pay: -\$505.3M/ 65.3M</p> <p>4. Payback Yrs/Break Even Yr: 4 / 2012</p> <p>5. Steady State/ - Mil Pay: -\$79.4M/-34.4M</p> <p>6. Mil/Civ Reductions: 507 / 112</p> <p>7. Mil/Civ/Stu Relocated: 1,421 / 221 / 1,354</p>	<p style="text-align: center;"><b>Environmental</b></p> <ul style="list-style-type: none"> <li>• No current Air Quality issues</li> <li>• No current noise issues</li> </ul>
<p style="text-align: center;"><b>Economic</b></p> <ul style="list-style-type: none"> <li>▪ Direct/Indirect:</li> <li>▪ Employment Base:</li> </ul> 	<p style="text-align: center;"><b>Community</b></p> <ul style="list-style-type: none"> <li>▪ Overall risk evaluation: Medium</li> <li>▪ 5 out of 10 evaluated attributes decline: housing, medical health, safety, population center, and utilities.</li> </ul>



# Candidate #USA-0004

**Candidate Recommendation:** Realign Fort Bliss, TX, by relocating the Air Defense Artillery (ADA) Center & School to Fort Sill, OK. Consolidate the Air Defense Artillery Center & School with the Field Artillery Center & School to establish a Net Fires Center.

<p><b>Justification</b></p> <ul style="list-style-type: none"> <li>✓ Mult Service activity Consolidation</li> <li>✓ Consolidates Net Fires training and doctrine development</li> <li>✓ Promotes training effectiveness and functional efficiencies</li> <li>✓ Lowest One-Time Cost among alternatives</li> <li>✓ Creates space at Ft. Bliss for other activities</li> </ul>	<p><b>Military Value</b></p> <ul style="list-style-type: none"> <li>✓ Fort Bliss 1<sup>st</sup> of 99</li> <li>✓ Fort Sill 20<sup>th</sup> of 99</li> <li>✓ Military judgment that it does not adversely affect MVA because it moves activities to and from installations within 1<sup>st</sup> quartile of Army Portfolio</li> </ul>
<p><b>Payback</b></p> <ul style="list-style-type: none"> <li>✓ One-Time Cost: \$190.3M</li> <li>✓ Net Implementation Costs: \$18.7M</li> <li>✓ Annual Recurring Savings: \$46.58M</li> <li>✓ Payback Period: 4 years</li> <li>✓ NPV (savings): \$406.8M</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>✓ Criterion 6: -6,020 jobs (3369 direct, 2651 indirect) 1.33%</li> <li>✓ Criterion 7: Housing, Medical Health Utilities, and Safety issues. No impediments</li> <li>✓ Criterion 8: Noise Issues no impediments.</li> </ul>

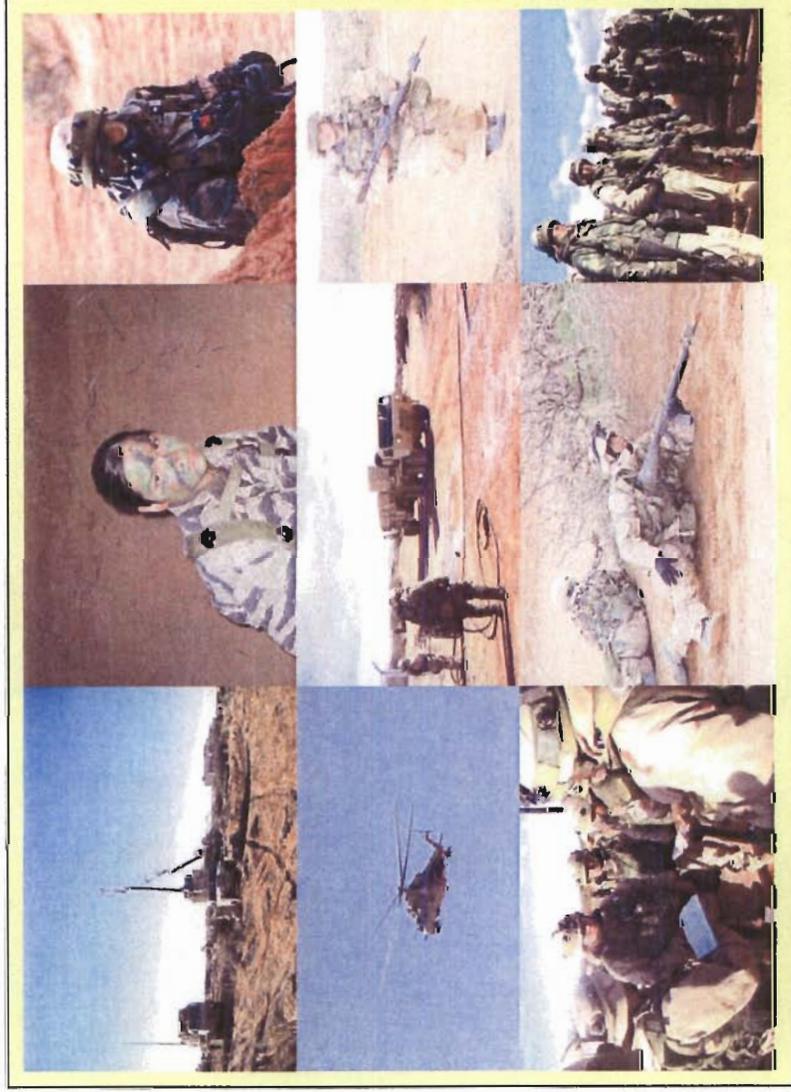
- ✓ Strategy
  - ✓ Capacity Analysis
  - ✓ Data Verification (Ongoing)
  - ✓ JCSG Recommended
  - ✓ De-conflict W/DCGS
  - ✓ CCERA
  - ✓ Military Value Analysis (Ongoing)
  - ✓ Criteria Analysis
  - ✓ De-conflict W/Services
- Draft Deserative Document - For Discussion Purposes Only - Do Not Release Under FOIA



# Net Fires Center (Bliss)



COBRA	Sill remains open	Environmental
<ol style="list-style-type: none"> <li>1. One-Time Cost: \$217.1M</li> <li>2. MILCON: \$145.1M</li> <li>3. NPV / NPV-Mil Pay: -\$806.0M/ 50.3M</li> <li>4. Payback Yrs/Break Even Yr: 3 / 2011</li> <li>5. Steady State/ - Mil Pay: -\$179.6M/ -12.1M</li> <li>6. Mil/Civ Reductions: 757 / 262</li> <li>7. Mil/Civ/Stu Relocated: 1,756/290/7,688</li> </ol>		<ul style="list-style-type: none"> <li>• Air Quality                             <ul style="list-style-type: none"> <li>• Nonattainment for Particulate Matter (PM10), Ozone, &amp; Carbon Monoxide</li> <li>• Personnel &amp; mission increase will require New Source Review &amp; permit modifications</li> </ul> </li> </ul>
<p style="text-align: center;"><b>Economic</b></p> <ul style="list-style-type: none"> <li>▪ Direct/Indirect:</li> <li>▪ Employment Base:</li> </ul>		<p style="text-align: center;"><b>Community</b></p> <ul style="list-style-type: none"> <li>▪ Overall risk evaluation: Low</li> </ul>



# AIR AND MISSILE DEFENSE TRAINING STRATEGY



## **BOTTOM LINE**



- **Understand JNTC Program Process**
  - DAMO-TR must nominate and prioritize Army programs to JFCOM
- **Intent is to Make Familiar the Air and Missile Defense Strategy**
  - Joint Kill Chain Focused
  - Develop Routine Joint Training Relationship
  - Leverage Joint Training Capabilities/Events



# AGENDA



- **Why Change the Training Strategy?**
- **AMD Endstate**
- **AMD Training Strategy**
- **Training Rotation Construct**
- **Summary**
- **AMD Training Way Ahead**



# RATIONALE FOR CHANGE



- **Addressing OIF Observations—Making Them Lessons Learned**
  - Leaders Not Trained to Perform in a Non-contiguous Environment
  - Leaders and Soldiers not Flexible or Adaptable Enough to Employ Available Means to Fight in the COE
- **Training Strategy (CATS/Drills) Did Not Test Joint SA or Kill Chain**
  - Patriot Forces Focused on SWA Rotations for 12 Years
    - Not Training the Right Way; Lost Joint Familiarity, Employment of ADAFCOs, and Actual Communication Hardware
  - Lack of Continuous IPB of Air and Ground Forces
  - Level of Joint Interdependence Not Appreciated
- **Create a Combat-Focused “Capstone” AMD Training Event**
  - No CTC to Assist BDE and BN CDRs to “Pull It All Together”
  - Leverage/Integrate the “right” Joint/Combined Live/Virtual Training
- **Transform our AMD Formations**
  - Embedded Warrior Culture
  - Expeditionary Mindset, Full Spectrum Capable (C2, Logistics, TASKORG)



# AMD ENDSTATE



**ADAPTIVE, WELL TRAINED WARRIORS WITH COMPETENT AND CONFIDENT LEADERS AND BATTLE STAFFS THAT PROVIDE AIR AND MISSILE DEFENSE IN JOINT, COMBINED AND COALITION OPERATIONS, CONTRIBUTING TO SITUATIONAL AWARENESS / UNDERSTANDING, AIRSPACE MANAGEMENT, AND OPERATIONAL FORCE PROTECTION IN A CONTEMPORARY OPERATING ENVIRONMENT.**

**TA 3.2.7  
Conduct AMD  
operations**

**OP 6.1  
Provide operational air,  
space, and missile  
defense**

**TA 6.5  
Provide for combat  
identification**

**ART 44-4-9002/9049  
Conduct AD Ops against  
hostile AC and TBMs**



# JOINT RED FLAG/ROVINGS SANDS QUICKLOOK



- **Friendly Protect Success.... in spite of anomalies**
  - Aircraft not squawking appropriate codes
  - TBMs with IFF codes
  - Cruise Missiles squawking Mode III
  - Red Air with valid mode 4
- **Effective Integration of Future Joint Air and Missile Defense Systems**
  - Terminal High Altitude Area Defense (THAAD)
  - AEGIS
- **Ground Based Air Defense Participation in AAR/Shot Validation at Red Flag**
  - Imperative to Complete the Joint Training Environment



# JOINT RED FLAG/ROVINGS SANDS QUICKLOOK (Cont)



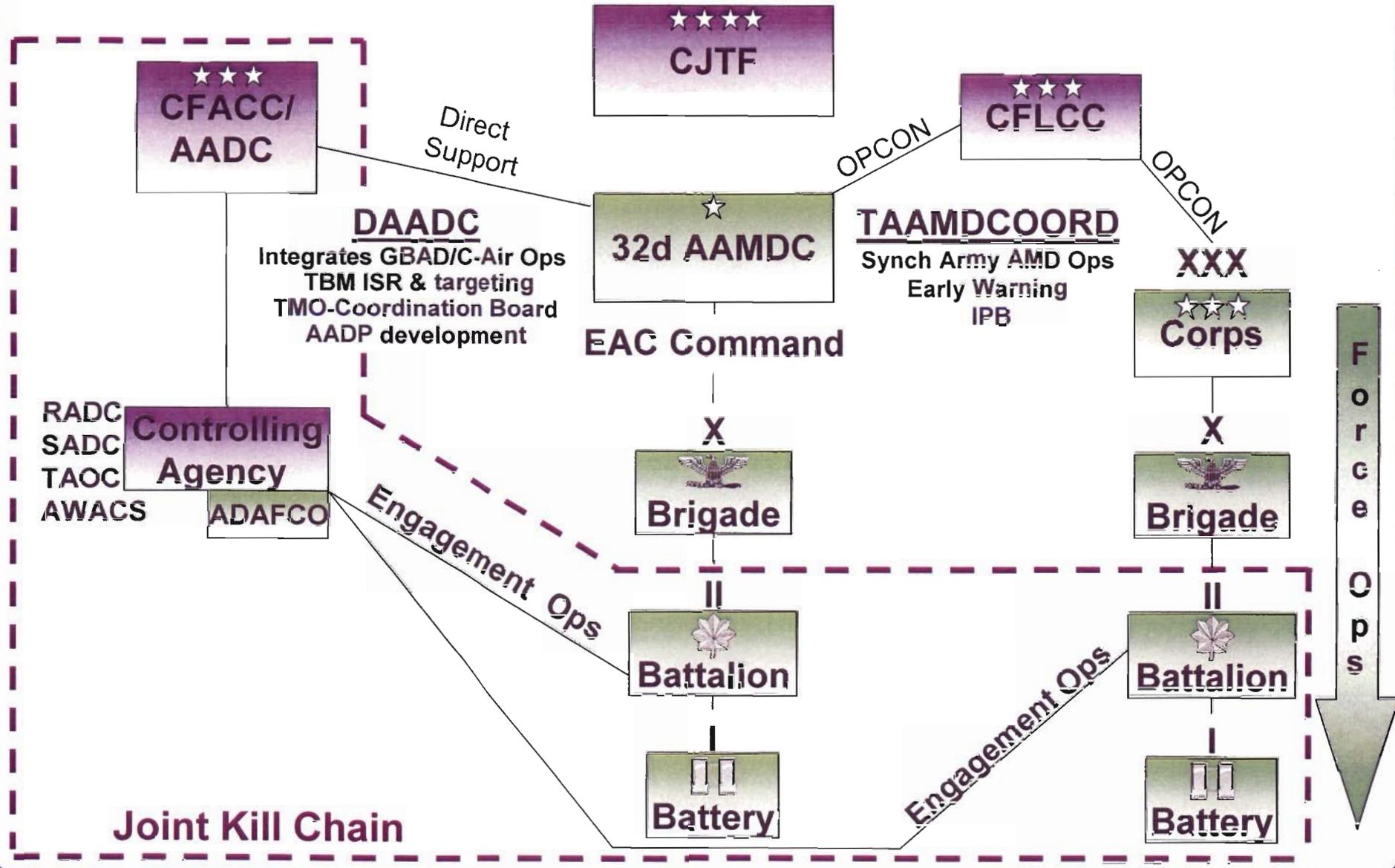
- **Joint Tactical Control of Ground Based Air Defense Needs Improvement**
  - Limited experience in understanding GBAD integration
    - Control chains (regional/sector commands) are ambiguous
  - Inconsistent view of ADAFCO relevance
    - ADAFCOs are critical to successful kill chain execution– Must continue to train jointly
- **Joint System Interoperability – A Must**
  - Sharing of Air Tasking/Control Orders and Identification Incompatibilities
  - Limited radios to execute early warning, engagements and Joint time sensitive targeting
- **JNTC Architecture a Success**
  - Refine and routinely exercise L-V-C interface

No Re-occurring  
Training Event to Work  
These Critical Areas

OIF Observations Require Routine Joint Training  
to Make Lessons Learned



# THEATER AIR and MISSILE DEFENSE COMMAND and CONTROL





# BASIS FOR A ROTATIONAL TRAINING STRATEGY



OIF

TODAY

WAY AHEAD

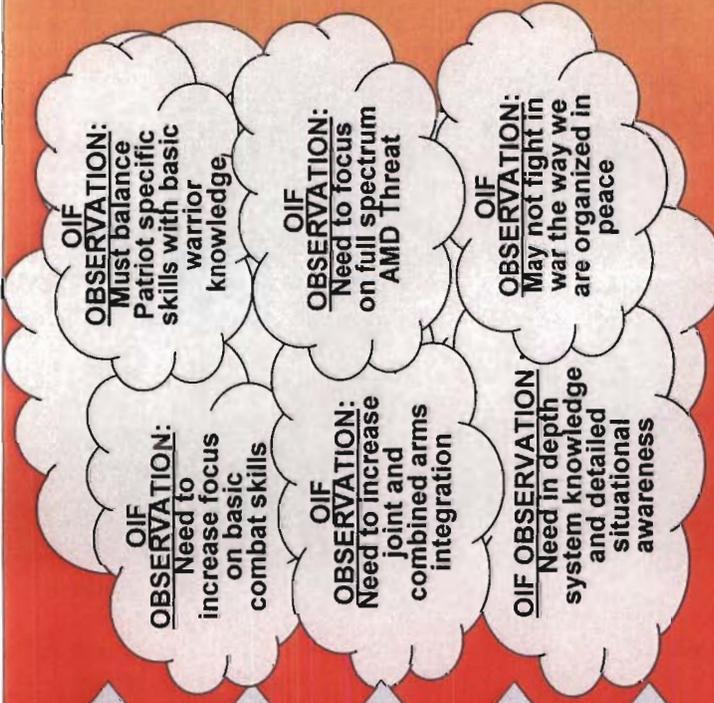
507th Report

DAIG Report

DSB Report

Tank Brief

Frat Reports



- Unit alignment with specific theaters -- less emphasized
- Increased standardization in assessments and certifications
- Emphasize "human in the loop" situational awareness
- Training in a noncontiguous battlefield -- Adaptive threat
- Leverage existing resources
- Leverage more *Joint Live and Virtual Training Exercises*
- Standard training tailored to the needs of the Patriot force in the context of Joint and Combined Arms
- Need to be skilled in weapon specialty specific as well as warrior basics – must pull it all together

DAIG Finding: Patriot field training does not reflect battlefield conditions of OIF

JOINT TRAINING SYSTEM THAT FOCUSES ON ADAPTIVE, TRAINED WARRIORS, HIGHLY SKILLED WITH JOINT KILL CHAIN OPERATIONS



# LIVE, VIRTUAL, CONSTRUCTIVE OPERATING ENVIRONMENT



## CATS Requirements

- Conduct Operations
- Conduct RSOP
- Deploy, Move, Emplace
- Conduct Battle Command/Staff Actions
- Conduct Strategic Deployment/Redeployment

Drives  
L,V,C  
Environment

## Live

- ✓ Warrior Tasks and Drills
- ✓ CATS/RAL
- ✓ LFX (CLFX, Patriot, Avenger Gunnery)
- ✓ JCIET Type Exercises
- Combat Training Rotation

## Virtual

- ✓ Embedded Training Software (PCOFT, TPT, RTOS)
- Drive Up System Training (DUST) Facility (SPEAR/SABER) High Intensity Air Battles
- Joint Training (UFL, JSTE, Virtual Flag ..)

## Constructive

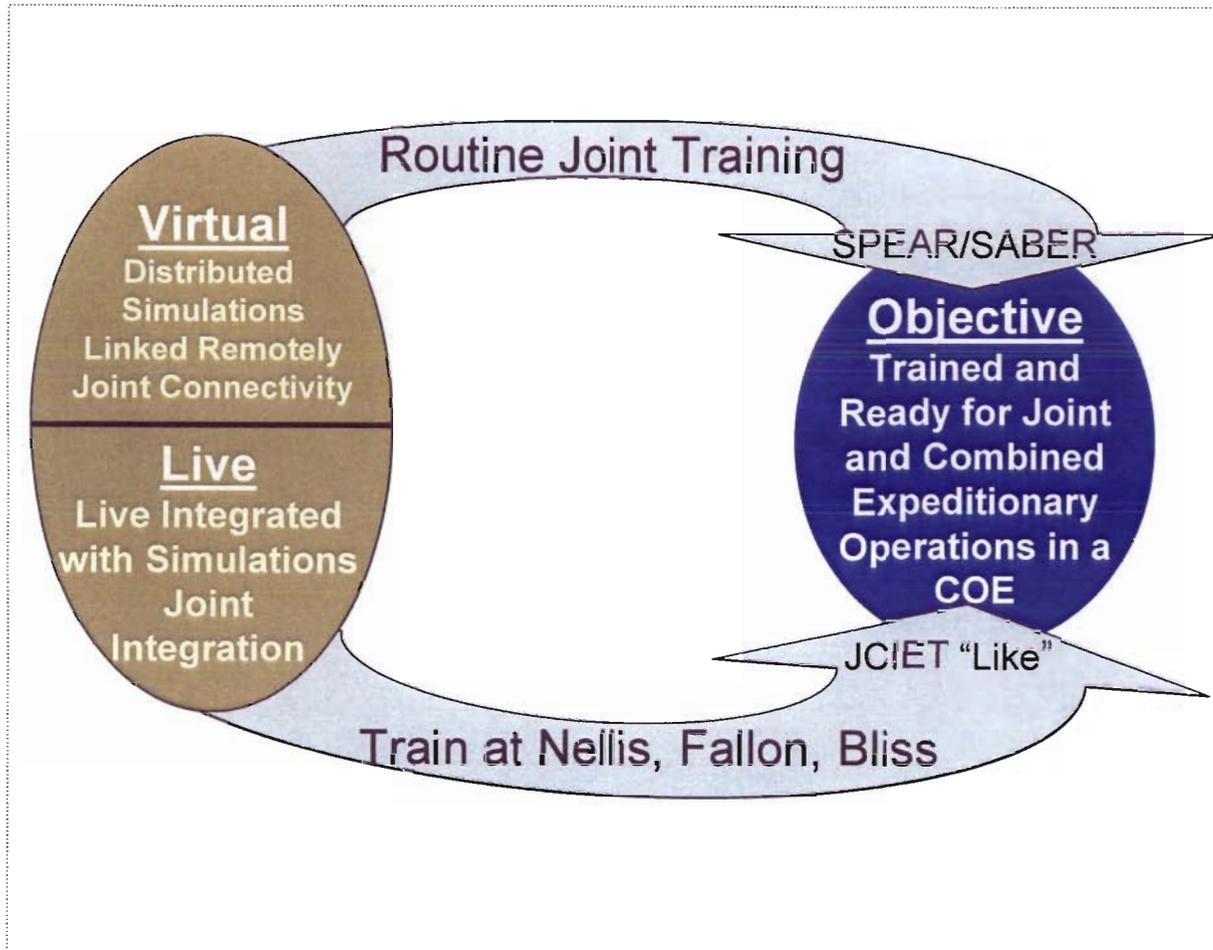
- ✓ CBS, JANUS → Stimulates tactical boxes and creates a “wrap around” scenario

JRF SUGGESTS THAT WE LEVERAGE THE JNTC INFRASTRUCTURE TO MAKE JOINT TRAINING (EXERCISING THE JOINT KILL CHAIN) A ROUTINE FUNCTION





# JOINT TRAINING CRITERIA



## Execution Criteria

- **Affordability**
- **AAR/Instrumentation**
  - Crew Level Participation
- **Live Tactical Control Agency**
- **More Flexible Land Use**
  - Continue working with Bureau of Land Mgmt

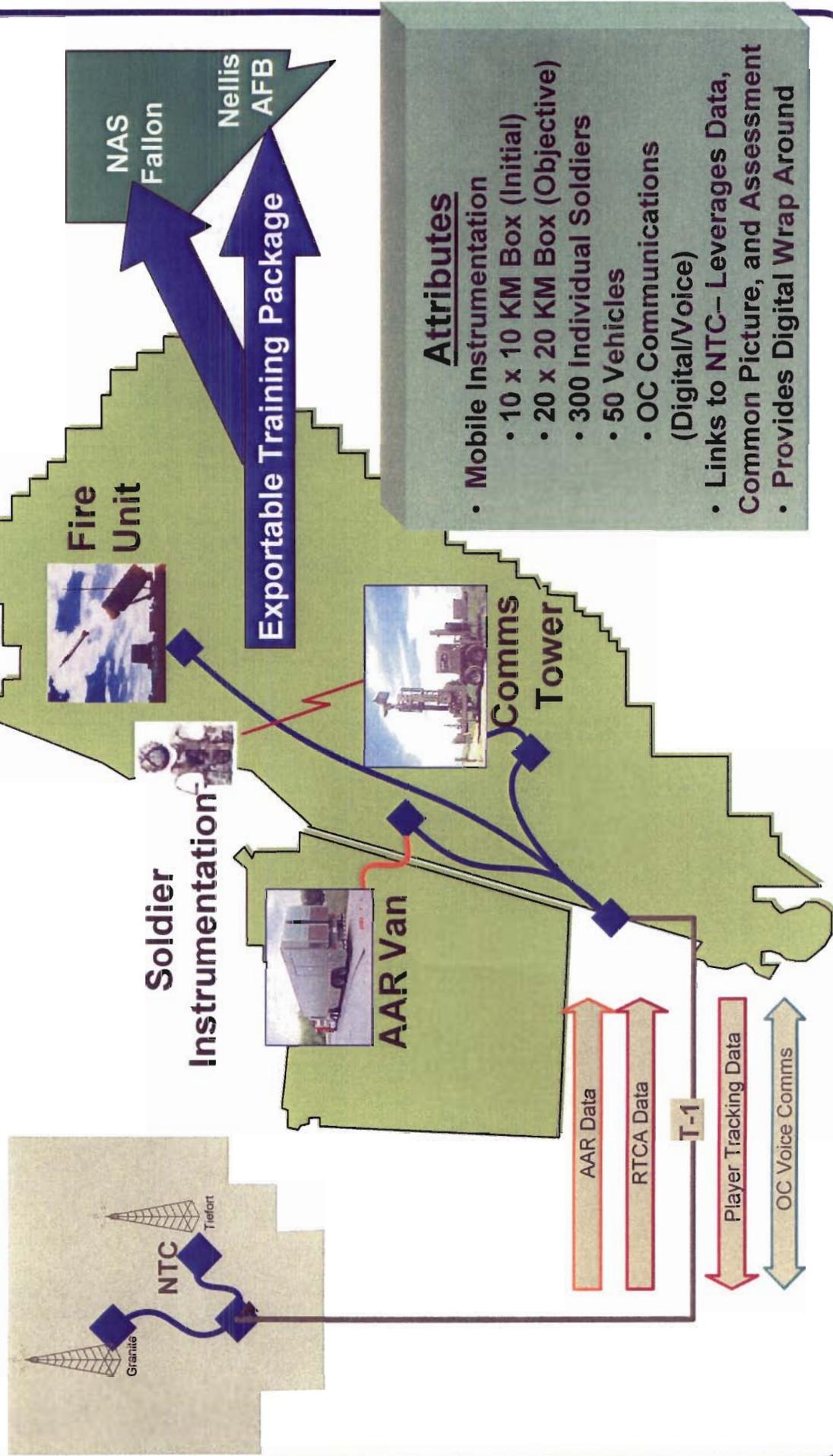
**ROUTINELY EXERCISE AND ASSESS  
THE JOINT KILL CHAIN**



# AMD TRAINING SUPPORT



## Fort Bliss Range Complex



### Attributes

- Mobile Instrumentation
  - 10 x 10 KM Box (Initial)
  - 20 x 20 KM Box (Objective)
  - 300 Individual Soldiers
  - 50 Vehicles
  - OC Communications (Digital/Voice)
- Links to NTC – Leverages Data, Common Picture, and Assessment
- Provides Digital Wrap Around



# AMD TRAINING CONCEPT TODAY



TRI-Service Working Group

## 1 Institutional Training



- Joint Courses– JTAMD (Jul 04)
- Master Gunner (Mar 04)
- Top Gun (Nov – Dec 04)
- NCOES/OES/WOES/IMT

## 2 Maneuver Training



- Link into CTC Events (JRTC- Apr 04)
- Convoy Live Fire

## 3 Situational Training



- Updated Gunnery Tables/RAL Oct 04
- High Intensity Air Battle/Staff Training (SABER)

## 4 Joint Training



- Habitual Training Relationship Established with ACC/DMOC/NSAWC
- Combat ID/Engagement Ops

## 5 Coalition Training



- Homestation Training (FT Bliss to Kuwait and Korea)
- Proof of Principle Nov 04

## 6 Rotation- Capstone Event



- Joint C2, Live Air, Live Fire, Premier OCs (CTC Aug), Instrumentation
- First Event – Dec 04

TRI-Service Working Group

... EVERY ELEMENT HAPPENING NOW



# ADDRESSING JOINT TRAINING DEFICIENCIES



Tri Service Working Group Issues	AMDTC / SABER / SPEAR Implementation
<ul style="list-style-type: none"><li>• Lack of Understanding of IFF Operations</li></ul>	<ul style="list-style-type: none"><li>• Training Operators to Evaluate Specific Modes/Codes and ID at Operator Level IAW ID Matrix</li></ul>
<ul style="list-style-type: none"><li>• Lack of ADAFCO Training and Utilization</li></ul>	<ul style="list-style-type: none"><li>• Habitual Joint ADAFCO Training Conducted</li></ul>
<ul style="list-style-type: none"><li>• No Dedicated Voice Net for Engagement Operations</li></ul>	<ul style="list-style-type: none"><li>• Established a dedicated voice NET (SATCOM or VoIP—training only)</li></ul>
<ul style="list-style-type: none"><li>• Need to Use Joint Terminology (Brevity Codes)</li></ul>	<ul style="list-style-type: none"><li>• Training Joint Brevity Codes</li></ul>
<ul style="list-style-type: none"><li>• AMD A2C2 Procedures/Measures Not Widely Understood by Joint Community</li></ul>	<ul style="list-style-type: none"><li>• Implemented A2C2 Procedures/Measures into Joint Training Scenarios</li></ul>
<ul style="list-style-type: none"><li>• Lack of Automation for Airspace Measures and Control Procedures (TBMCS to Patriot TACPLANNER)</li></ul>	<ul style="list-style-type: none"><li>• Implemented Means to Limit Manual Data Input— Full Implementation with Software Upgrades in CY06</li></ul>

## BENCHMARK FOR INTEGRATING NEW JTTPS



# SUMMARY



- Rotational Training Strategy “Closes the Loop” on OIF Observations, Making them “Lessons Learned”
- Increase Operator/Leader Awareness and Understanding Through “Human in the Loop” (DSB)
- AMDTC Coordinated with Joint Exercise Opportunities, will Optimize Training for the Joint Kill-Chain (DAIG)
- AMDTC Reinforces Joint Interdependence and Combined Arms Operations (DAIG/507<sup>TH</sup> Report)
- Leaders make an Improved Assessment of their Unit Capabilities and More Effectively Develop Junior Leaders; Emphasizes Leadership Fundamentals (MDMP, TLP, RSOP, Risk Taking, etc.)
- Infrastructure is Adaptable to any Formation (...new UA to Fort Bliss)
- Planned, Coordinated and Executed with USAADASCH (TRADOC)

**AMD Training Strategy Supported By:  
MajGen Goldfein (AWFC/CC) Nellis AFB  
RDML Moffit (Cdr, NSAWC) NAS Fallon**



# AMD TRAINING WAY AHEAD



## The Path We're On

- Provide a Rigorous/Standardized Joint Training Environment
- Provide a More Uniformly Trained and Consistent Army AMD Force
- Provide a Joint Capstone Training Event for AMD BDEs and BNs
  - Focus On Training OIF Observations
- Provide a Modular Instrumentation/Assessment Package to Support AMD and Maneuver Forces

## Requested Assistance

- DA Support to JFCOM Nominating as a JNTC Program
- Assistance in Resourcing (TRM Model Adjustment) to Accommodate Training Strategy for '08 POM as Forwarded by FORSCOM
- Recognize Strategy for AMD Force



# Back-Ups



# ACRONYM LIST



**A2C2:** Army Airspace Command and Control  
**AADC:** Area Air Defense Commander  
**AADP:** Area Air Defense Plan  
**AAMDC:** Army Air and Missile Defense Command  
**AAR:** After Action Review  
**AC:** Aircraft  
**ACC:** Air Component Command  
**AD:** Air Defense  
**ADAFCO:** Air Defense Artillery Fire Control Officer  
**ADCON:** Administrative Control  
**AMD:** Air and Missile Defense  
**AMDTC:** Air and Missile Defense Training Concept  
**AWACS:** Airborne Warning And Control Station  
**AWFC:** Air Warfare Center  
**BDE:** Brigade  
**BN:** Battalion  
**C2:** Command and Control  
**CATS:** Combined Arms Training Strategy  
**CBRN:** Chemical, Biological, Radiological, and Nuclear  
**CBS:** Corps Battle Simulation  
**CDRS:** Commanders  
**CFACC:** Combined Forces Air Component Commander  
**CFLCC:** Combined Forces Land Component Commander  
**CJTF:** Combined Joint Task Force  
**CJTFFEX:** Combined Joint Task Force Exercise  
**CLFX:** Combined Live Fire Exercise  
**CMD:** Command  
**COB:** Civilians on the Battlefield  
**COCOM:** Combatant Command  
**COE:** Contemporary Operational Environment

**CONUS:** Continental United States  
**CTC:** Combat Training Center  
**CY:** Calendar Year  
**DAADC:** Deputy Area Air Defense Commander  
**DAIG:** Department of the Army Inspector General  
**DAMO-TR:** Department of the Army Military Operations Training  
**DMOC:** Distributed Mission Operations Center  
**DSB:** Defense Science Board  
**DUST:** Drive-Up System Training  
**EDRE:** Emergency Deployment Readiness Exercise  
**EXEVAL:** External Evaluation  
**FE:** Foal Eagle  
**FMS-D:** Flight Mission Simulation-Digital  
**FOUO:** For Official Use Only  
**FY:** Fiscal Year  
**GBAD/C:** Ground Based Air Defense/Counter-Air  
**IFF:** Identification Friend or Foe  
**IMT:** Initial Military Training  
**IPB:** Intelligence Preparation of the Battlefield  
**ISR:** Intelligence, Surveillance, and Reconnaissance  
**JAGCE:** Joint Air-to-Ground Center of Excellence  
**JANUS:** Joint Army Navy Uniform Simulation  
**JCIET:** Joint Combat Identification and Evaluation Team  
**JFCOM:** Joint Forces Command  
**JNTC:** Joint National Training Center  
**JRF:** Joint Red Flag  
**JSTE:** Joint Service Training Exercise  
**JTAMD:** Joint Theater Air and Missile Defense  
**LFX:** Live Fire Exercise



# ACRONYM LIST



**MCRC: Master Control and Reporting Center**  
**MDMP: Military Decision Making Process**  
**METS: Mission Essential Tasks**  
**MRE: Mission Rehearsal Exercise**  
**NCOES: Non-Commissioned Officer Education System**  
**NSAWC: Naval Strike Air Warfare Center**  
**NTC: National Training Center**  
**OC: Observer Controller**  
**OES: Officer Education System**  
**OIF: Operation Iraqi Freedom**  
**OPCON: Operational Control**  
**OPFOR: Opposing Force**  
**PCOFT: Patriot Conduct of Fire Trainer**  
**PenORE: Peninsula Operational Readiness Exercise**  
**RADC: Region Air Defense Commander**  
**RAL: Reticule Aim Level**  
**RSOI: Reception, Staging, and Onward Integration**  
**RSOP: Reconnaissance, Selection, and Occupation of Position**  
**RTCA Data: Real Time Casualty Assessment**  
**RTOS: Real Time Operating System**  
**SA: Situational Awareness**  
**SABER: Standardized Air Battle Engagement Readiness**  
**SADC: Sector Air Defense Commander**  
**SATCOM: Satellite Communications**  
**Sim: Simulation**  
**SPEAR: Standardized Patriot Engagement Assessment of Readiness**  
**SWA: Southwest Asia**  
**TAAMDCOORD: Theater Army Air and Missile Defense Coordinator**

**TACON: Tactical Control**  
**TACPLANNER: Tactical Planner**  
**TAOC: Tactical Air Operations Center**  
**TASKORG: Task Organization**  
**TBM: Tactical Ballistic Missile**  
**TBMCS: Theater Battle Management Core System**  
**THAAD: Terminal High Altitude Air Defense**  
**TLP: Troop Leading Procedures**  
**TMO: Theater Missile Operations**  
**TPT: Troop Proficiency Trainer**  
**TRADOC: Training and Doctrine**  
**UA: Unit of Action**  
**UEx: Unit of Employment**  
**UEy: Unit of Employment (Army Theater Level)**  
**UFL: Ulchi Focus Lens**  
**USAADASCH: United States Army Air Defense Artillery School**  
**VOiP: Voice Over Internet Protocol**  
**VTC: Video Tele-conference**  
**WOES: Warrant Officer Education System**



# FUNDING STRATEGY



## -- Training Rotation --

### Instrumentation Package



Training Integration Cell



Individual Instrumentation



AAR Facility

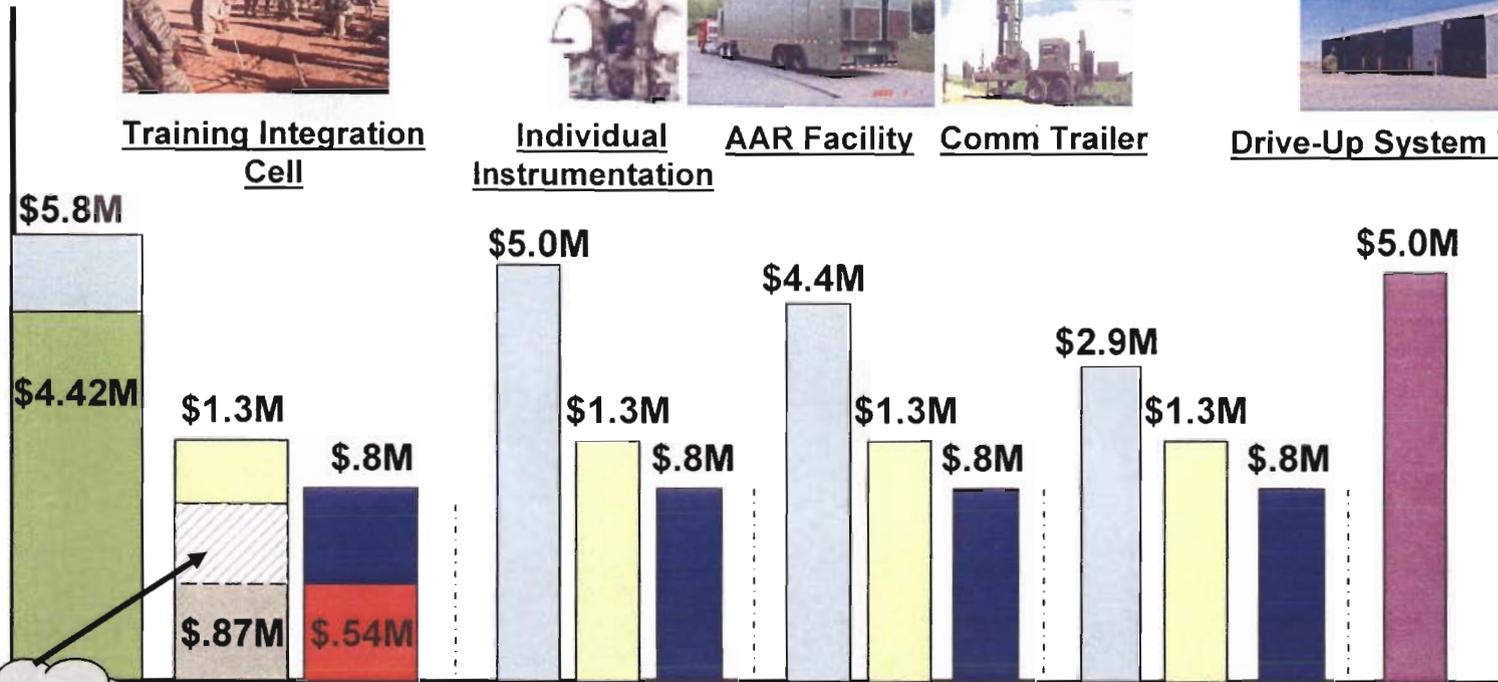


Comm Trailer



Drive-Up System Training (DUST)

Funding Required (\$M)



Recent Investment  
450K From All  
FORSCOM ADA  
BDES

FY05

FY06

FY07

FY08

FY09

1 Tower, Sim, CTs, TIC, Mobile AAR Facility

2 Towers, Sim, CTs, TIC, Maint, Comms, AAR Van

1 Tower, Sim, CTs, TIC, Maint, Comms,

Sim, CTs, TIC, Maint, Comms

Sim, CTs, TIC, Maint, Comms

- = AMDTC Required
- = AMDTC Funded
- = CT Requirement

- = CT Funded
- = DUST (Sim) Requirement

↳ POM

- = DUST (Sim) Funded
- = TRM



# AMD TRAINING STRATEGY



-- AMD Brigade --

EVENTS	Year 1				Year 2		Year 3					
	ORGANIZE		TRAIN-UP		CERTIFY		READY					
Total TNG Days		80		247		30		20		377		377
Duration	Freq	Days	Freq	Days	Freq	Days	Freq	Days	Freq	Days	Freq	Days
<b>Capstone</b>												
Joint/MNF EX			1	30					1	30	1	30
CT Rotation/MRE*					1	30			1	30	1	30
BDE FTX			2	14					2	14	2	14
DEPEX			1	5					1	5	1	5
<b>AMD Competencies</b>												
BDE STX/SABER			2	7					2	7	2	7
Bde CPX			4	7					4	7	4	7
Gunnery (IX-XXII)			1	7					1	7	1	7
Gunnery (V-VIII)			2	7					2	7	2	7
BN FTX			4	14					4	14	4	14
BN STX/SPEAR			2	10			2	10	4	10	4	10
BTRY FTX			4	7					4	7	4	7
<b>Warrior Skills</b>												
DVR Training	1	5							1	5	1	5
Gunnery (I-IV)	4	5							4	5	4	5
CMD Maintenance	52	1							52	1	52	1
Ind/Crew Wpns	2	1							2	1	2	1
NBC Training	1	1							1	1	1	1
CLFX			2	5					1	5	1	5
Tact Live Fire			1	7					1	7	1	7

\* = FORSCOM Reg Requires EXEVAL/CTC once every 24 months



# AMD TRAINING STRATEGY



-- Multi-Echelon Training Costs --

Event	Frequency	Cost
Joint Coalition Exercise / Corps WFX / UFL (BDE)	12-18 Mo	\$210K(HQ only)
CT Rotation/ MRE	12-18 Mo	\$1,844K
Deployment Exercise (local/limited movement/Air-Raiload mix)*	12-18 Mo	\$80K/750K
BDE FTX	6 Mo	\$2,022K
BDE CPX*	3 Mo	\$1,008K
BDE STX/(SABER)	6 Mo	\$1,628K
Table IX-XII Gunnery (BTRY)*	Ann	\$70K
Table V-VIII Gunnery (BTRY)*	6 Mo	\$70K
BN Field Training Exercise*	3 Mo	\$782K
BN STX/(SPEAR)*	6 Mo	\$784K
Tactical Live Fire	Ann	\$654K
Battery FTX*	3 Mo	\$115k
Convoy Live Fire Exercise (CLFX)*	Ann	\$115K

**AMD Brigade w/ 2 AMD BNs**

AMD Training Strategy  
Required Costs = **\$23.3M**

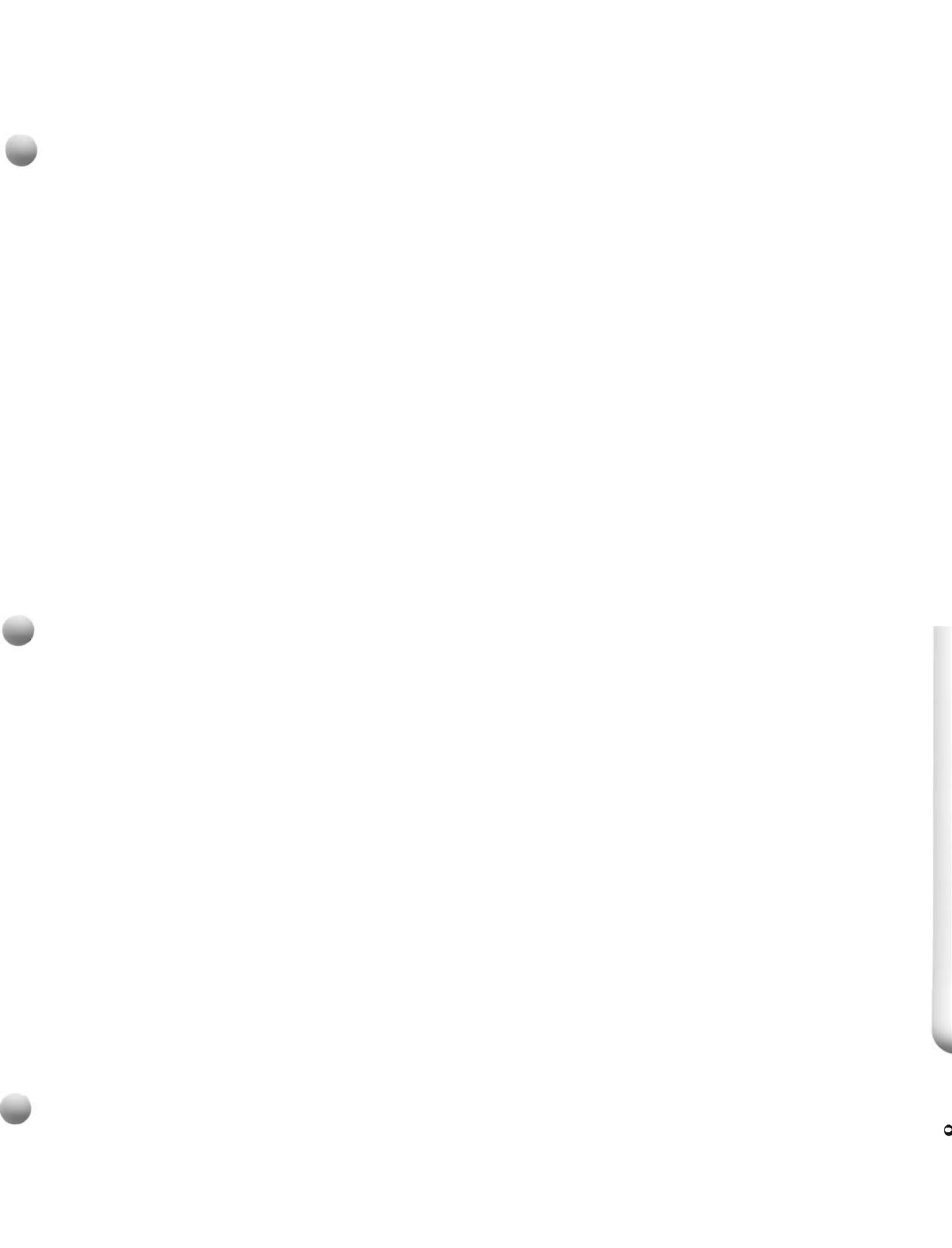
Historic AMD Brigade  
Average Cost = **[\$16.7M\*\*]**

Cost Delta = **\$6.6M**

Blue = Critical Training Events

\* Multi-Echeloned Training Costs

\*\* Average Cost (11x, 31x, 108x) over 3 years





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 **TAKE- AWAYS FROM THE COMMAND BRIEF** 

- Proactive Transformation
- DoD Flagship Installation
- National Level Interests
- Superb Training Areas

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 **Steeped in Our Historical Legacy** 



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**TeamBliss** "Serving the Nation"  
**We Were There When We Were Needed**

**WE ARE STILL THERE TODAY**

Desert Storm

Bosnia/Kosovo

Winter Olympics 2002

Operation Noble Eagle

Operation Enduring Freedom

Operation Iraqi Freedom

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**TeamBliss** "Serving the Nation"  
**Fort Bliss**

**Vision**  
 A DOD flagship installation comprised of state-of-the-art training areas, ranges and facilities, led by adaptive, innovative and warrior-focused professionals, concentrated on individual and unit readiness, leader development, deployment, security and the well-being of Team Bliss.

**Mission**

- Fort Bliss trains, sustains, mobilizes, and deploys members of the joint team
- Conducts global, full spectrum operations in support of the national military strategy
- Provides for the well being of the regional military community

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**TeamBliss** "Serving the Nation"  
**Changing to Meet the Challenges**

- Transforming Army AMD Branch  
Integrator: Commandant
- AMD School Transformation  
Integrator: Assistant Commandant
- Fort Bliss Installation Transformation  
Integrator: Garrison Commander

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**TeamBliss** "Serving the Nation" **Range Capabilities**

- Largest range in the Army
- Ample maneuver space
- Any weapon system the Army has can be fired here




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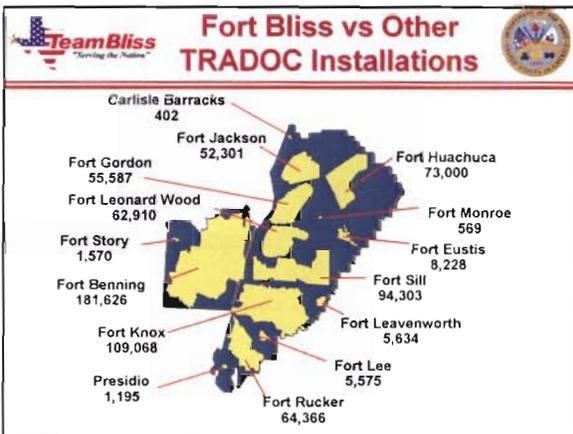
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**TeamBliss** "Serving the Nation" **Fort Bliss vs Other TRADOC Installations**



Installation	Acreage
Carlisle Barracks	402
Fort Gordon	55,587
Fort Leonard Wood	62,910
Fort Story	1,570
Fort Benning	181,626
Fort Knox	109,068
Presidio	1,195
Fort Jackson	52,301
Fort Huachuca	73,000
Fort Monroe	569
Fort Eustis	8,228
Fort Sill	94,303
Fort Leavenworth	5,634
Fort Lee	5,575
Fort Rucker	64,366

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**TeamBliss** "Serving the Nation" **Barracks Improvements**

- Some refurbished barracks with apartment style living
- COL Massello Hall
  - Each is 1 to 1 standard:
    - 220 square feet
    - Walk in closets
    - Sink
    - Bathroom
- Dayroom, laundry room, mail room and storage areas for personal belongings
- Landscaping around all




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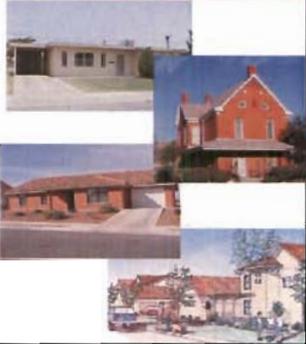
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**TeamBliss** "Saving the Nation" **Family Housing**

- 1893 to Present
- Multiple style quarters
- Waiting list is from zero to twenty-four months
- 38% of married soldiers assigned to Fort Bliss live in post quarters
- RCI → FY 05




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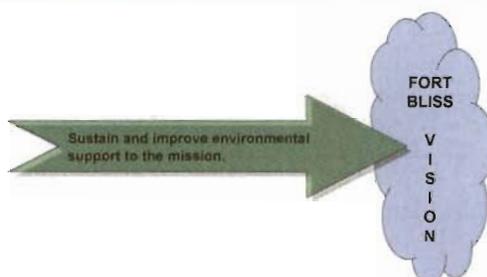
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**TeamBliss** "Saving the Nation" **Environmental**




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**TeamBliss** "Saving the Nation" **Environmental Award**

Keep Texas Beautiful, Inc. (KTB) is a grassroots nonprofit organization that strives to empower Texans through education to taken responsibility for enhancing their community environment

In 2003, Fort Bliss was awarded the first place in the "Government Award" category.

Awards granted by KTB recognize individual and organizations of their commitment to community in improvement.





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**TeamBliss** "Serving the Nation" **Business Practices**

Institute smart business practices for installation organizations and increase partnerships with private and governmental entities.

**FORT BLISS VISION**

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**TeamBliss** "Serving the Nation" **Partnerships**

Reciprocal agreements to help each other  
Some save resources  
Some make for good neighbors

Partners: Holloman AFB, WSMR, City & County Governments, Veterans Administration, State Government, Federal Agencies, Prison, US Border Patrol, White Sands, Alamogordo Alliance for Regional Military Support, Las Cruces, Greater Hispanic Black, El Paso Chambers, Academia, Bureau Of Land Management.

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**TeamBliss** "Serving the Nation" **Partners in Education**

- High payoff program
  - Partnering with 38 schools
  - Over 40,000 hours donated during the 00-01 school year
  - Improved morale, self-esteem, and interpersonal skills for soldiers
  - Significant improvements in standardized test scores at partner schools

**Fort Bliss selected as:  
Top EPISD Partner for the  
Past Six Years**

- Partnering with Local Universities

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**TeamBliss** "Serving the Nation" **Well-Being**



Improve well-being by exploiting new ways of providing effective and efficient service (innovation and initiatives).

**FORT BLISS**  
**V I S I O N**

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**TeamBliss** "Serving the Nation" **Morale, Welfare and Recreation**



- 2 Parks
  - Outstanding facilities, best in El Paso
  - Water park at Biggs
  - Putt putt golf at Kelly Park
  - Paint Ball Complex
- 2 Child Development Centers
  - Certified/Nationally Accredited
  - World Class
- Lodging – 454 rooms, restaurant, pool
- 2 Community Pools
- 5 Gyms
- PPV Car Wash
- 2 Youth centers, Skateboard Park
- Bowling Center
  - Largest in DoD (Thunder Alley)
- Auto Crafts
  - Self use equipment and professional advisors
  - Hobby Shop/Vehicle Repairs
- 2 World Class Golf Courses
- Fort Bliss Rod & Gun Club
- LTG Mickelsen Consolidated Library
- Centennial Club (largest banquet facility in the Army)
- World Class RV Park
- Summer Teen Hiring Program
- Spousal Employment Opportunities

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**TeamBliss** "Serving the Nation"



**Summary**

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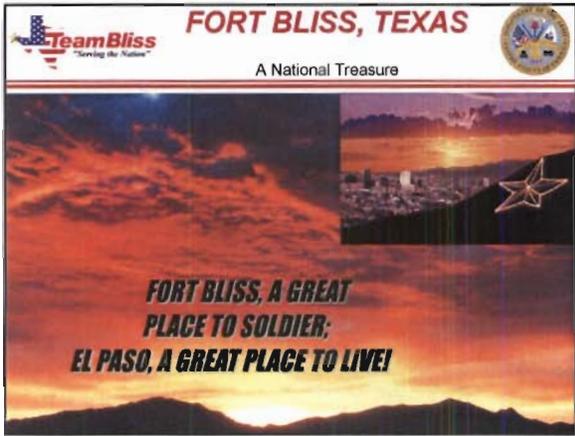
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