POINT PAPERS for 2005 BRAC Commission
25 July 2005
EFTF Point Paper Submission to 2005 BRAC Commission

Executive Summary

The Ellington Field Task Force (EFTF) submits as public comment this document of relevant Point Papers for consideration by the 2005 BRAC Commission in deliberation of the “Ellington Field AGS” recommendation.

These EFTF point papers support the EFTF request that the 2005 BRAC Commission reject the 5/13/05 BRAC recommendation related to the 147th Fighter Wing Air National Guard (referred to in BRAC documentation as the “Ellington Field AGS”).

These point papers include pertinent detail and perspective with regard to specific issues and queries that BRAC Commissioners and Analysts raised and requested during the formal BRAC Commission meetings – the 7 July BRAC Ellington site visit, the 11 July BRAC Regional Meeting, and the 25 June Briefing by the Ellington Field Task Force Delegation to the BRAC R&A Air Force Analyst Staff.

I. Protecting America’s National Assets

A National Security Issue, High Value Asset Impact on America’s Southern Gulf Coast

II. Homeland Defense, and Other BRAC Process Flaws

Homeland Defense, Mil Value/Judgment, Cost Unaccounted & Inconsistently Accounted

III. Ellington Field Joint Reserve Base (EF JRB)

Joint Training and Joint Use Inconsistently Accounted

IV. Alert Response Issues, for EF JRB ANGB Home-station Alert vs. Detached Alert

Full Fighter Wing Alert is Crucial Unaccounted

V. Scenarios of Multi-Pronged Terrorist Attack on our Homeland

Full Fighter Wing Alert is Crucial Unaccounted

VI. 147th FW Aircraft Rampspace Capabilities

Proven Ramp Surge Capacity Unaccounted

VII. A-10s Don’t Satisfy Mission for 147th Fighter Wing

Fighter Force Structure - F-16 vs. A-10 platform performance issue

VIII. Homeland Security Center

Layered Infrastructure Fits for EF JRB Unaccounted

This document supplements, and should be referenced by the 2005 BRAC Commission in combination with the previously submitted documents and electronic files from the Ellington Field Task Force, dated 25 June, 7 July and 11 July 2005.

Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!

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USA F Criticism of its own process

- "Recommendations that are Not consistent with rankings of installations must be fully justified." - Where is the justification?

- "Transformational Recommendations: is one with no military value justification, military judgment is the sole rationale, it is not cost effective, it has long paybacks." - This seems to refer to Ellington.

- "Transformational has no legal basis and should be removed. These should be justified in terms of military value or the force structure plan."

"BRAC Red Team White Paper 18 April 05"

Examples of Military Judgment

Vandenberg & Patrick – Polar Orbit
Andrews AFB – Supports President
Ellington AGS – Essential to Homeland Defense

CONCLUSION

1. BRAC CASE is Not Made

The Department of Defense has not made a "BRAC" case for inactivation of the 147th Fighter Wing.

2. CASE FOR "PRIORITY #1" … HOMELAND DEFENSE

- This recommendation would leave numerous, crucial national assets unprotected during a time when they are at risk.

3. CASE BASED ON MILITARY VALUE, JUDGEMENT & COST SAVINGS

- This recommendation was not developed using meaningful or accurate data or process, and, in the context of BRAC, it does not save money.

4. BOTTOM LINE

- We find no merit in this recommendation and respectfully request that you, the BRAC Commission vote to non-concur.

... 147th Full Fighter Wing Must Remain at Ellington Field JRB
I. National Security Issue: Protecting America's National Assets
On the Texas Gulf Coast

AMERICA'S ONLY "FBI-9" MUNICIPALITY
All Nine Terrorist Target Assets Identified by DHS/FBI
- Ports, Petrochemicals, Oil Refineries, Strategic Oil Reserves leads the list of prime "High Value" Targets
- A High Concentration of Targets vulnerable to terrorists
- Terrorist Attack Scenarios make the region vulnerable to 9/11-style, diversionary, multi-pronged tactical, timing synchronized attack from Air, Ground and Maritime sources

Impact to National Security (refer to pages 2 and beyond of this point paper)
$Billions in Economic impact to the Nation from attack to just one of these National Assets

Homeland Defense Solution:
Complete Homeland Defense includes a Multi-layered Defense from First Responders
(refer to point paper, "VIII. Homeland Security Center at Ellington Field Joint Reserve Base")
- 147th FW ANG – Full Fighter Wing
  - Alert armed fighter force responders at Ellington Field JRB, Directed by USNORCOM
    (refer to point paper, "IV. Alert Response" for Rules of Engagement)
  - Without the Full Wing Alert Mission, America’s National Assets become "Soft Targets" to Terrorists (refer to point paper, "V. Scenarios of Multi-Pronged Terrorist Attack")
- DHS US Coast Guard Air and Maritime First Responders
- Local Civil First Responders

Challenge to BRAC Recommendation
We respectfully challenge the recommendation to eliminate the primary source of defense of high value terrorist targets in the Texas Gulf Coast. (refer to point paper, "II. Homeland Defense, and Other BRAC Flaws")

It just doesn’t make sense.

Request to the BRAC Commission
We request that the BRAC Commission reject the recommendation for Ellington Field AGS.

It only makes sense – for Priority #1 – The National Security of America’s Homeland.

The remainder of this point paper further describes America’s National Assets and their impact on the Nation’s Economic Security.

Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!
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EFTF PP 2
Protecting America’s National Assets

High Concentration of High Value Assets on the Texas Gulf Coast Region

- Texas Gulf Coast Ports – Ports of Houston (1st International Tonnage), Galveston, Texas City, Beaumont/Port Arthur, Corpus Christi Military Deployment.
- Oil Refineries - 25% of U.S. Capacity, including 24% Capacity in Jet Fuel
- Petrochemical Plants - 50% of U.S. Capacity
- Strategic Petroleum Reserve - 100% of U.S. SPR
- Intercoastal Waterway – International Commerce
- NASA Johnson Space Center – Center of Excellence in Human Exploration of Space
- The Texas Medical Center – World’s Largest
- National Bio-Containment Laboratory – Strategic National Research
- South Texas Nuclear Power Plant – Strategic Power Source
- Sporting Event Venues – Strategic National Events

Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!
Texas Gulf Coast – America’s Vital National Assets

Texas Ports – Strategic to U.S. Economy

**Port of Houston Authority – Houston Ship Channel – High Value Terrorist Targets**

- Number 1 in Tonnage of International Cargo into the United States
- International Gateway Port to America’s Heartland and to Mexico
- High Concentration of High Value National Assets and Targets for Terrorists
- Petrochemical, Oil Refineries, Shipping
- Located Close to Downtown and Many other High Value National Assets

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Ellington Field Joint Reserve Base – Protecting America’s Vital National Assets!
Concentrated Complex of Oil Refineries – 25% of U.S. Capacity
- Oil Refineries – 25% of all oil refined for use in the U.S.
- Jet Fuel – 24% of U.S. Capacity
- Major Economic Stability Risk – e.g., Gasoline supply and prices
- Known to be a prime target for Global Terrorists – e.g., Dec 2003 & Mar 2004

Concentrated Complex of Petrochemical Plants – 50% of all U.S.
- Petrochemical Plants – 50% of all petrochemical processed materials for use in U.S. Manufacturing
- Known to be a prime target for Global Terrorists – e.g., Dec 2003 & Mar 2004
Strategic Petroleum Reserve Sites – All 4 (100%) in the U.S.
- America’s Strategic reserve of petroleum (90 days)
- Four Sites on Texas and Louisiana Gulf Coasts
- SPR Pipeline sources are prime targets for Terrorists – must be “hard targets”

NASA Johnson Space Center - America’s Human Space Exploration Program
- America’s Mission Control Center in Houston / NASA Johnson Space Center
- Mission Control Center must be protected by Air Sovereignty defense
Texas Medical Center – World’s Largest

The World’s largest Medical Research & Healthcare Complex

- 81,000 direct employees, 81,000 indirect jobs (largest employer in the region, 4.3% of total regional employment)
- $2.5 Billion in research grants in the past 5 years (many Homeland Security projects; feds need to protect their investment)
- 6,176 beds (responsible for 70% of the health care in a 13 county area)
- Home of the only two Level 1 Trauma Centers in a 13 county area
- $13.5 Billion indirect economic impact to the Houston area economy (Federal Reserve statistic)
- 3rd most visited healthcare location for foreign heads of state

National Bio-containment Laboratory – National Research

- Future Home at the University of Texas Medical Branch Complex in Galveston
- Future National Asset for Bio-containment Science Research
South Texas Nuclear Power Plant
- Regional Nuclear power plant located on the Southeast Texas Gulf Coast

Major Event Venues - Three Major Showcase Sports Venues in Houston
- High Visibility New State-of-the-Art Venues all having held or scheduled for Major Events where the 147th FW TANG flies on Full Alert – NFL Super Bowl, MLB All-Star, NBA All-Star
II. Homeland Defense, and Other BRAC Process Flaws

Introduction

Scope. We believe the DOD's recommendation to the BRAC Commission to inactivate the 147th Fighter Wing at Ellington Field Joint Reserve Base is wrong. It is wrong because the DOD deviated substantially from its own guidelines, and BRAC law in arriving at this recommendation for Ellington Field AGS. The BRAC Process was flawed ... in Four Key Areas.

- Homeland Defense
- Data Metric
- Misleading Cost Analysis
- Application of Military Judgment

Purpose: This point paper is delivered to the BRAC Commission in order to convey the facts. We request that the BRAC Commission reject the BRAC recommendation related to the Ellington Field AGS (147th Fighter Wing Air National Guard).

- After the 7 July site visit by BRAC Commissioner James V. Hansen, it is now obvious that the general public and elected officials are now aware of the importance of the Houston Infrastructure to the Nation. And, that the 147th FW is a vital part of the layered Homeland Defense for that area.
- The final disposition of Air Defense assets for the Houston area needs more review by Senior Leadership. But to do that, we must first stop this BRAC recommendation.
- The very fact that the Air Force let this premature recommendation slide under the radar screen, and into the BRAC process is in itself indicative of a flawed process.

Robb Parr, Col (USAF Retired)
Former Commander, 147th Fighter Wing (1989-1996)
Flawed BRAC Process

We believe the DOD recommendation to the BRAC commission to inactivate the 147th Fighter Wing is wrong. It is wrong because the DOD deviated substantially from its own guidelines, and BRAC law in arriving at this recommendation.

The BRAC Process was Flawed ...

Flawed In Four Areas

- Homeland Defense - This recommendation leaves crucial national assets along the Texas Gulf Coast inadequately defended.
- Data Metric - The DOD did not utilize meaningful data to score Ellington Field’s present and future military value.
- Misleading Cost Analysis - This recommendation does not save money
- Application of Military Judgment - The DOD did not use the data that it did assemble in an appropriate manner. No evident use of Military Value or Military Judgment.

Failed to Consider Homeland Defense

The BRAC Selection Criteria that were established prior to 9/11 and do not adequately account for the Defense of our Homeland Assets. And, while our nation was still recovering from the shock and grief of 9/11, the previously proposed BRAC 2005 process was approved by Congress on December 28, 2001 - barely three months after this world-changing tragedy.

- Homeland Defense – Number 1 Priority? The documented DOD and Air Force BRAC Strategic Planning process publications are on record as committed to Homeland Defense as “Priority #1”. However, Homeland Defense as top priority was not apparently sufficiently recognized in the BCEG review and approval of Air Force BRAC recommendations.
- ANG Dual Role is Strategic. U.S. Fighter wings have both a world-wide and a Homeland Defense mission. Where they are stationed, is key to accomplishing both missions.
- High Value Assets. Ellington is strategically located near numerous high value, potential terrorist targets. This would seem to be an ideal bed-down base.
- Co-location of Air Sovereignty Alert - 147th FW is Crucial. The 147th FW is the only asset capable of dealing with an airborne threat, and a simple alert site is inadequate.

DOD & BRAC Commitment to Homeland Defense

The National Defense Strategy, as set forth in the 2001 QDR report makes protecting the U.S. homeland the HIGHEST PRIORITY for the Department of Defense. The Air Force consulted with USNORCOM to ensure these (BRAC) recommendations consider the geographic locations of our installations and preserve sufficient installations near our borders and NEAR HIGH-VALUE TARGETS to support air sovereignty as part of homeland defense.


- We find no evidence of meaningful inclusion of either concept in the recommendation.

Preserve Installations Near Our Borders and their High Value Target”

These “Alert Sites” are identified as the strategic sites that should be preserved for Defense of our strategic Homeland Assets. The BRAC Air Force does not “preserve sufficient installations near our borders and near high-value targets” for the Houston municipal area.

Inactivation is Inconsistent with BRAC guidance.

Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!
Alert Site vs. Full Wing Co-Located

- **Air Sovereignty Alert (ASA) Site**
  - Immediate response to specific threat.
  - Small contingent of aircraft, personnel and equipment.
  - Supported by parent wing, co-located or remote.

- **Fighter Wing**
  - Robust response capability to broad threat.
  - If not co-located with alert site, significant time to implement full response.
  - *When seconds count, location is the key.*

- **Local Familiarity Importance**
  - Pilot familiarity with local area
  - Pilot familiarity with air defense and air sovereignty procedures
  - Support personnel are equally familiar with mission

- **50 years of Demonstrated Mission Capability**
  The infrastructure and personnel required to provide air defense of the Texas Gulf Coast have been in place at Ellington for 50 years. It has been utilized and tested over and over during that time. Almost all of these "things" would go away if the wing did, and, under the BRAC proposal they would be replaced with less aircraft, less infrastructure, and less well trained people, providing a lesser capability.

At a time when the real threat to our homeland is probably greater than it has ever been, ...
* THIS MAKES NO SENSE.*
Flawed Data Metric

• Homeland Defense metric not included - Re: MV Criteria #2
  - Strategic location.
  - Command Post, 24-hr, with fight in place capability.
• Joint Training not credited - Re: MV Criteria #1
  - Joint Dissimilar Air Combat with Marine and Navy fighter aircraft.
  - Ellington Field has always been Joint – Army National Guard, Coast Guard, NASA
  - ANG joint Homeland Defense operations with USNORCOM & local first responders
• Other Military Value anomalies and omissions - Re: MV Criteria #1
  - Error in calculation of Ellington's "Access to Supersonic Airspace"
  - Inconsistent credit for large, voluminous, highly useable, supersonic airspaces.
  - Large new ramp space, with sunshades, enough for another squadron, plus staging
  - No credit for a favorable community relationship which allows operations with minimal compromise.
  - No credit for demonstrated value as a staging area and airport for embarkation (Desert Storm)
  - Low-level navigation routes are included in metric but not part of current training requirements.

Ellington DOES HAVE the Infrastructure to support future missions.

Non-Application of Homeland Defense in Military Judgment

It is apparent that Homeland Defense was insufficiently used in 1) the calculation of Military Value and 2) the BCEG deliberations for Ellington Field AGS.

• Strategic region in BCEG review – At one point in the BCEG review process, the Ellington Field AGS review charts reflected the Houston area as a strategic region, which would ultimately have had impact on the BCEG’s review and approval process.
• Strategic region dropped – The strategic region designation was later and permanently omitted from the BCEG review charts. This deletion is clearly in opposition to the Number 1 priority for Homeland Defense rule.
• BCEG action – Given a correct strategic annotation for the municipal region, Military Judgment by the BCEG should have influenced disapproval of the existing BRAC recommendation for Ellington Field AGS.

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Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!
Airspace Comparison: Ellington & Montgomery

Let’s compare to show you the data metric flaws, the airspace of Dannelly Field. This is a wonderful organization. Their airspace is a fraction of the size of Ellington’s and it goes from eight to 18,000 feet. And those that have flown the F-16 knows that’s not enough except for segmented types of training. It’s not enough for full training. But the data metric gave them credit because they had five ranges versus two and they were closer to the base.

Now, in many cases the close proximity is important, but with the overwater ranges and the F-16s long legs, that’s irrelevant. That range that starts at about 90+ miles out there is well within the easy reach and utilization of the F-16.

Look at the difference in the points that Dannelly got. Dannelly got twice the numeric score for their ranges than Ellington did.

MCI Airspace Calculation Error

Attribute 1203 is simply a math error.

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<th>Corrected Value</th>
<th>Error Value</th>
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<td>8.048</td>
<td>3.38</td>
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<td></td>
<td>ELLINGTON TOTAL MCI</td>
<td>48.08</td>
<td>45.36</td>
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Corrected MCI or 48.08 raises the Ellington ranking to:

- 8th among 28 ANG Fighter Wings (from 10th)
Now for the fuzzy math. The BRAC showed $3.6 million of savings would occur from the Ellington recommendation, but all costs were not inclusive.

- **BRAC Calculations** not inclusive of all costs.
  - Real calculations – up to $33.1 Million 20 year cost, versus $3.6M savings
  - Subsequently, (July 2005) Air Guard Bureau has certified NO SAVINGS, and in fact **NET LOSS over 20 years**
- **No credit** was given for Air Warrior support.
  - $100,000 annual savings to Air Combat Command.
  - Net Present Value, 20 years is $1.5 Million
- **Cost of operating a remote alert site.**
  - $6 Million additional annual cost to USAF
  - $120 Million in 20 years
- **Burden shift to other agencies** (Army Aviation, US Coast Guard, and NASA) not considered.
  - Minimum of $400,000 per year yet to be distributed
ANG F-16 BRAC MCI RANKINGS

Here is possibly the most revealing graphic in the whole process. This gets back to Military Value:

- This bar graph simply shows the relative military value of the various Air National Guard fighter wings that were considered.
- See on the left those with the highest military value score and those on the right with the lowest military value score. Ellington is about in the middle, actually three steps up from the middle, 10th of 26.
- How do you justify the fact that the installation with the lowest military value actually gained resources and aircraft? In fact, it wasn’t just the lowest one.
- There were eight ANG wings with lower military value scores that received more and newer aircraft.
- That doesn’t make sense unless there’s another way of explaining it.

![Flawed Application of Military Judgment]

- Eight (8) Air Guard fighter units with lower numeric (MCI) scores receive more and or new aircraft.
- BRAC Use of Military Judgment for Adjustment is Not Apparent.
Flawed Application of Military Judgment – Post-BRAC

This map shows where the ANG resources went:

- When you look at the light blue six-sided figures. Those are the units that had a lower military value score than Ellington but actually received more and newer aircraft.
- This “picture” clearly shows a top strategic municipality in the nation in terms of economic impact should one of the many FBI-9 assets be hit, Houston, being shorted – the Homeland Defense as Number One Priority –

The BRAC recommendation just doesn’t make sense!

Homeland Defense is clearly not among the BRAC or BCEG decision criteria!
Ellington Field Task Force • Point Paper to 2005 BRAC Commission • 25 July 2005

II. Homeland Defense, and other BRAC Process Flaws • Page 12 of 12

America's #1 Priority
HOMELAND DEFENSE

147th Fighter Wing
Texas Air National Guard
Ellington Field Joint Reserve Base
Houston, Texas

FUTURE FORCE STRUCTURE
III. Ellington Field Joint Reserve Base

Joint training and joint use center featuring 147th FW ANG and DoD, DHS, Civil Units

Background: The Base Realignment and Closure documents refer to Ellington Field as Ellington Field Air Guard Station which does not adequately recognize the current or future configuration of the military reservation. The area is approximately 210 acres including several acres owned by the Coast Guard on Ellington Field. Fiscal Year 2006 MILCON legislation will add approximately 42 acres.

Purpose: The purpose of this paper is to communicate to the BRAC Commission, the infrastructure military value of the Ellington Field Joint Reserve Base that is not otherwise accounted for, and should be considered in the military value for any of the individual EF JRB military tenants.

**ELLINGTON FIELD JOINT RESERVE BASE**

- Missions - Existing, Planned and Future Expansion
- A joint missions center

**EXISTING JOINT BASE INFRASTRUCTURE**

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<th>Defense Units</th>
<th>MILCON &amp; Planned</th>
<th>BRAC 2005 Recommendations</th>
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<td>79th Army Reserve</td>
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<td>1-23rd Marine Reserve</td>
<td>USA RC (Pasadena)</td>
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<tr>
<td>Naval Reserve</td>
<td>USA RC (#2 Houston)</td>
<td></td>
</tr>
<tr>
<td>MEPS</td>
<td>USA RC (#3 Houston)</td>
<td></td>
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<tr>
<td>TARNG (4+ TX relocated)</td>
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**DHS Units**

- USCG - Houston Air Sta

**Civil Units**

- NASA JSC Aviation
- Current Joint Mission Airspace Training
  - ANG, AF, Navy, MC, Army + Ft Polk, Ft Hood
  - Air-Air, Air-Surface, Air-Maritime

**Satellite Communications**

- Skyport International
- Ongoing, Daily - 25,000 sq. m, Clean MOA to 50,000 ft

**COMMERCIAL & CIVIL TENANTS**

- Southwest Airport Services
- Leitz Flying Service
- Wings Over Houston
- Air Show
- Commemorative Air Force
- Cell Hyde Flying Services

**Future Expansion**

- Joint Homeland Defense
- DOD, DHS, Civil FR's
- Regional HS Center
- DHS/USCG
- DOD/147th FW ASA
- Civil/First Responders
- DHS/CEA
- DHS/FBI/SS

- Other Joint Services
- DOD Agencies
- Criminal Investigation
- AAFES, Clinics, Family
- VA Facilities
- Civil Air Patrol

**Notes:** * - The 147th FW ANG is the base executive command unit.

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SupportEllingtonField.com

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EFTF PP 21
Current Facts about the Ellington Field Joint Reserve Base

Consider these military value facts related to current joint operations and training at the Ellington Field Joint Reserve Base:

- **EF JRB Units** – The principal units currently at Ellington Field are the 147th Fighter Wing Texas Air National Guard; the 1st Battalion, 149th Aviation Regiment Texas Army National Guard; and U.S. Coast Guard Air Station Houston.

- **Executive Unit** – The 147th Fighter Wing is the executive agent that provides services to the military compound. In addition, the 147th Fighter Wing provides control tower services, utility management, and fire fighting services for the entire airport.

- **Joint Training** – The 147th FW manages and participates in joint training from EF JRB, highlighted by force training with Navy, Marine Corps and Air Force fighter and tanker aircraft conducting dissimilar aircraft Air-to-Air training and refueling training in the superb offshore ranges; and with Army Air-to-Ground training for Forward Air Controllers from EF JRB to Fort Polk; and with the Army in Air-to-Ground training for Forward Air Controllers at Fort Polk.

- **EF JRB Civil Tenants** – There are other significant entities at Ellington Field including the National Aeronautics and Space Administration’s (NASA) Aviation Division for astronaut training and high altitude research.

- **Commercial/Government Services** – The privately owned SkyPort International provides secure satellite communications for several government agencies including the National Guard. This facility will be located within the secure boundary with the expanded military reservation.

- **EF JRB Governance** – The operations at Ellington Field are governed by a Federal Operations and Maintenance Agreement (FOMA); an Airfield Joint Use Agreement (AJUA); and a Crash/Fire Rescue Agreement (CFR).

- **Local Infrastructure Support** – The City of Houston on September 10, 2004 authorized the designation of the military reservation to be renamed Ellington Field Joint Reserve Base. This name change has been deferred pending the BRAC recommendations.
City of Houston Letter of Commitment

OFFICE OF THE MAYOR
CITY OF HOUSTON
TEXAS

September 10, 2004

Col. Ianny B. McNelly
1479 W/CC
14657 Strader St.
Houston, TX 77034

RE: Designation of Joint Military Reserve Base

Dear Col. McNelly,

The City of Houston has considered the request to designate a portion of Ellington Field as a "Ellington Field Joint Reserve Base" and has concluded that language (or similar language) is acceptable. In order to facilitate this change, please coordinate with the Director of the Houston Airport System, Mr. Richard Vorer, and advise what further action on his part is required.

On behalf of the City, we are proud of the military units based at Ellington and applaud their role in securing this part of the country, the state of Texas and Houston in particular. We hope this new designation will strengthen that relationship in years to come.

Sincerely,

Bill White
Mayor

POST OFFICE BOX 1502 • HOUSTON, TEXAS 77201
713/224-2200
Expansion: Appropriated and Planned – Non-BRAC

The military reservation is due to expand, featuring these initial relocations:

- **Reserve Center Relocations** (from Houston's Texas Medical Center district) – In Fiscal Year 2005 appropriations, Congress allocated funds to plan and design facilities for the move of units from the vicinity of the Texas Medical Center on Old Spanish Trail to Ellington Field. The units to move are the
  - U.S. Army's 75th Division (Training Support) as well as the
  - Navy Reserve Center and
  - Marine Corps Reserve Center.

  Funds are provided in proposed Fiscal Year 2006 budget to commence construction in addition to funds being made available through the sale of the Old Spanish Trail property to the University of Texas’s M.D. Anderson Cancer Center. Recent legislation permits the proceeds of the sale of Reserve Centers to be used to build new facilities.

- **MEPS** – The Military Entrance Processing Station is scheduled to move from downtown Houston to the Ellington Field Joint Reserve Base.

Expansion: BRAC Recommended –

BRAC recommendations include expansion.

- **Guard and Reserve Realignments** – The BRAC recommendations include additional units to be added to Ellington Field including:
  - Texas Air National Guard’s 272nd Engineering Installation Squadron;
  - U.S Army Reserve Center, Pasadena, Texas with a Field Maintenance Shop;
  - U.S Army Reserve Center #2, Perimeter Park, Texas; and
  - U.S Army Reserve Center #3, Houston.
  - Texas Army National Guard units from Baytown, Pasadena among others in Southeast Texas (if the Texas National Guard decides to relocate those units to Ellington Field.)
  - Army National Guard units move from Ellington to an Armed Forces Reserve Center in (East) Houston and the previously listed units would go to that same location. The (East) Houston location has been superseded by the facilities to be built at Ellington Field.
Joint Training and Joint Use

Jointness has been an element of the BRAC process and this can be construed in two ways:

- Joint Warfighting Training and Joint Use Facilities.

- **Joint Warfighting Training** has been addressed previously but should be reiterated here.

  - **Joint AF, Navy, MC, Army Aviation** - A major element of this training consists of Navy and Marine Corps aircraft conducting dissimilar aircraft Air-to-Air training in the superb offshore ranges where supersonic, lights out, chaff, flare, and other training amenities in an area of over 21,000 square miles. This opportunity training consists of 150-250 sorties per year. Tanker aircraft are often scheduled for these training opportunities, though the proximity of the ranges to Ellington Field does not necessarily require tankers for some evolutions. No credit is assigned for this training unless it is part of a formal joint exercise.

  - **Joint AF, Army Air-to-Ground** - Of particular importance to U.S. operations in Iraq and Afghanistan, the 147th Fighter Wing performs Air-to-Ground Training at Fort Polk. This training for Army and Special Forces personnel in working with “fast mover” aircraft in open area and urban warfare settings include certificating Forward Air Controllers preparing for deployment.

  - **Joint AF, Army Joint Warfighting Training** - The addition of the 75th Division (Training Support) at Ellington Field Joint Reserve Base will provide additional opportunities for Joint Warfighting Training as the 75th Division is responsible for training Army Reserve and Army National Guard personnel preparing to deploy to Iraq and Afghanistan, as well as other operations.

- **Joint Use Facilities** are governed by the agreements cited above, but there are other Joint Use Facilities such as the Dining Facility, and the Medical Clinic which is staffed by the various units located on Ellington Field Joint Reserve Base. These facilities will be available when the additional units are moved to the Base. Among the units moving to Ellington Field Joint Reserve Base are Army and Navy Reserve Hospital Units which could enhance medical care of those assigned. These latter units would also be useful if the National Disaster Medical System is activated through Scott AFB. Ellington Field is a spoke on the San Antonio medevac hub and evacuees will triage and transit at this location to medical facilities in the Houston-Galveston area. Another Joint Use is the Security Force for which the costs are shared among the units present. The sharing of facilities will use Naval Air Station Fort Worth Joint Reserve Base as a model.

**Ellington Field Joint Reserve Base • Protecting America's Vital National Assets!**
Surge Capacity at Ellington Field Joint Reserve Base

Ellington Field Joint Reserve Base and the civil area of Ellington Field provide an enormous capability for surge and other support activities.

Ramp Space Surge Capacity – 147th ANG & Ellington Field Commercial Capacity

- Ramp Capacity demonstrates space in excess of 2 full fighter squadrons … completely refuting the BRAC claim that not enough ramp space exists for a full squadron of fighters.
- Fact … During Hurricane Dennis the Air Force Reserve Weather Squadron of WC-130 aircraft from Kessler AFB were evacuated to Ellington Field and used available ramp space at the 147th Fighter Wing.
- Aircraft from other locations affected by the hurricane were on commercial ramps.
- Five Air Force KC-10s recently staged at Ellington Field to support aircraft in transit.

Additional Demonstration of Airport Capacity

- The Wings Over Houston Air Show has approximately 200 aircraft on the ramps outside the military reservation.
- During the Superbowl, a National Security Event, between 350 and 400 aircraft including general aviation, business jets, 727’s, 757’s, and G-5’s, among others were at Ellington Field.
- Southwest Services, an FBO, provides fuel under government contract to most transient aircraft.

Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!
Ellington Field Expansion Capacity –

- **Available Acreage and Facilities** – With an additional 700 acres available from the City of Houston, Ellington Field Joint Reserve Base has the potential to take on additional units and missions.

- **Predator Capacity** – A potential addition, outside of BRAC, that is under consideration is a Predator Squadron. Such a unit would take advantage of the established Joint Training opportunities with Fort Polk and the potential training opportunities with the 75th Division. In addition, the Predators have a potential use in Homeland Security missions that would be coordinated with the Joint Operations and Command Post noted above.

- **High Speed Satellite Communications** – SkyPort International, currently onsite at the EF JRB handles high speed secure satellite communications, and can provide the necessary communications support to the Squadron.

**Proposed Expansion: Ellington Field Task Force Recommended**

**Recommendations proposed** – see www.supportellingtonfield.com

- **Quality of Life** – Currently there are about 1500 active, reserve and guard forces assigned to the units at Ellington Field. With the move of the non-BRAC reserve units and the implementation of other BRAC recommendations the number of personnel will increase to approximately 4500 plus dependents which will justify additional support. In addition there is an estimated 35,000 other eligible sponsors in the region plus dependents.
  - **Army Air Force Exchange System** – Within the past year the AAFES exchange has grown from a very small store to a large convenience store. With the additional personnel assigned to Ellington Field Joint Reserve Base a larger facility is justified.
  - **Commissary** – this quality of life facility is highly desired as nearest facility is about 180 miles away at Randolph AFB in San Antonio.
  - **Other Support functions** – these would include the USO, American Red Cross, ESGR, VA, Texas Veterans Land Board, Veterans Service Organizations would be represented on or near the base.

*Ellington Field Joint Reserve Base • Protecting America’s Vital National Assets!*
Proposed Expansion: Regional Homeland Security Center

Recommended future plans include a Department of Homeland Security regional headquarters with some operational units moving to Ellington Field Joint Reserve Base.

- **DHS/US Coast Guard** – Primary among them is the Coast Guard Sector Command which is scheduled to be established October 31, 2005.

- **DHS/Immigration and Customs Enforcement Aviation** – Another unit that should be moved to Ellington Field is the Immigration and Customs Enforcement Aviation unit.

- **DHS/Proposed Regional Homeland Security Center** – The DHS regional headquarters would have an operations center to be used in conjunction with the 147th Fighter Wing’s Military Command Post, the only such 24/7 establishment in this region of the country.

- **DHS & DoD Approach** – The combination would allow the 147th Fighter Wing and the Coast Guard to maintain a threat picture of the air and maritime approaches to the Texas coast.

- **Coordinated DHS, DoD, Civil First Responder Approach** – With additional Department of Homeland Security agencies, FEMA, and Civil First Responders, along with major industry representatives the threat picture would include terrorist threats by air, land and maritime.

- **Joint Center of Excellence for Homeland Defense and Homeland Security** – An element of the 75th Division (Training Support) is the Battle Projection Center which should be used in conjunction with the above command and operations centers to develop a world class Homeland Defense and Homeland Security Center of Excellence to simulate and exercise scenarios related to terrorist attacks.

- **Maritime Threats Coordinated for 147th FW and USCG** – The 147th Fighter Wing and the Coast Guard Air Station are discussing joint maritime supremacy operations which require Rules of Engagement being developed at higher commands. The Coast Guard Air Station will be getting armed helicopters in the future and the joint capabilities in this high threat area will be truly outstanding.
IV. Alert Response Issues for Ellington Field ANGB Home-station
Alert vs. Detached Alert

Alert Response
- Planning assumes a notional eight (8) minute response time to a Port of Houston area threat for all fighters.
- Ellington Field assets (147th FW) can be on-scene within one (1) minute from takeoff and loiter for almost three hours (2+55) at max endurance airspeed, or for over an hour and a half (1+35) at 450 knots.

Alert Support
- Maintenance and Logistics issues are extremely simplified with a co-located fighter wing
- Broken jets are replaced within 30 minutes

Alert at Home Station Savings
- $25M to run a fighter wing per year
- $1.5M extra for home station alert at Ellington with host wing co-located
- $7.5M to 11.5M extra for an alert detachment from a geographically separated Fighter Wing – detached alert not on an active duty or ANG installation that has a flying mission
  - Transit costs to replace aircraft, munitions, etc., travel and per diem for TDY personnel (sitting alert or traveling to fix aircraft/support equipment), additional overhead at home location to generate personnel and aircraft to support detached mission, lost opportunity costs for training with a minimum of three jets out of home station’s available inventory
  - Extensive infrastructure, security, air traffic control costs, fire/crash/Rescue, barrier maintenance, munitions storage, available area for heavy maintenance if required
    - Additional operating costs would be incurred by existing tenant organizations upon host wing departure
    - ATC, Fire/Crash/Rescue, navigational aid maintenance and support direct cost of Alert

Alert Home Station Surge Capability
- Sept 11, 2001
  - Immediately launched two alert aircraft to escort Air Force One
  - Additional 10 jets were armed and ready in 20 minutes for follow-on escort duties
  - Four jets on alert plus six additional jets supporting a 24hr Cap over Houston less than 8 hours after 911 occurred
- Plus up / back fill coordination from Tulsa or New Orleans
  - 4-6 hours from notification with a jet prepped and pilot ready, OTHERWISE—12 to 36 hours or more
  - Immediate plus up with home station alert.

Alert Home Station Future Missions
- Air Sovereignty Alert (ASA) is transitioning from Air-to-Air only mission to a combined Air-to-Air and Air-to-Ground Mission or Full Spectrum Alert
- Two issues are paramount for a wing to evolve into this mission expansion, Rules of Engagement and Aircraft Platforms to perform the mission now and in the future
• Rules of Engagement (ROE)  
  o Northern Command (NORTHCOM) publishes the current ROE and is currently working to  
    develop Air-to-Ground ROE to provide an increased layer of defense from the air against  
    asymmetric threats  
  o Once this ROE is published, units with the capability will be able to adjust their weapon loads and  
    maintain alert status with a combination of Air-to-Air and Air-to-Ground ordnance  
  o Capability means  
    ▪ The aircraft are capable of carrying and employing the ordnance  
    ▪ Pilots are trained to employ the weapons  
    ▪ Maintenance personnel are trained to build and load the weapons  
    ▪ The facility / base has the capability to maintain aircraft loaded with live weapons  
      ▪ Typical weapons associated with this mission will be precision in nature  
        ▪ Laser Guided Bombs (LGBs)  
        ▪ GPS Guided Bombs  
        ▪ AGM-65 Maverick Missiles in all variants (Electro-Optical and Infrared)  

• Aircraft Platforms  
  o Currently, F-16A/Cs and F-15A/Cs are performing alert on a regular basis  
  o Of these two, only F-16s can employ Air-to-Ground Ordinance  
  o F/A-22s can also perform this mission, however, they are not programmed to maintain homeland alert now or in the future  
  o The next generation platform replacing the F-16 is the F-35 and it will have the capability to perform Full Spectrum Alert  
    ▪ Full compliment of Air-to-Ground Munitions  
    ▪ Electronically Scanned Array (ESA) Radar to detect low observable airborne targets and increased weapons accuracy with ground radar updates  
    ▪ Full duplex data link with air and ground commanders which increases situational awareness  
  o Ellington Field already has the ramp capacity for two squadrons, buildable acreage, and optimum training airspace needed to support the training and operations of the F-35 (Reference Ramp Space Point Paper and Airspace Attachment)  
  o Until the F-35 is operational, an interim solution platform must be considered to meet the Full Spectrum Alert Response  
    ▪ 1st Choice: F-16C Block 60 or 50+ airframes  
      ▪ These aircraft are built by Lockheed Martin, which has leveraged technology from the  
        F-22 and F-35 program  
      ▪ Each aircraft can support ESA radars. This ESA radar can detect low, fast, small  
        moving targets at ranges much further than conventional radars. Additionally, the  
        radar can perform both air-to-air functions and air-to-ground functions simultaneously,  
        which is a huge advantage over current radar systems  
      ▪ Each airframe has advanced systems to deny enemy systems from acquiring the  
        aircraft  
      ▪ The latest technology is available to identify and attack air and ground based targets  
        from extended ranges. This provides survivability and brings value to the combatant  
        commander. These systems incorporate on-board sensors and off-board data link  
        capability  
      ▪ Foreign Military Sales (FMS) accounts for all production of these aircraft. The  
        possibility exists to add-on buy against these programs and save upfront procurement  
        costs  
      ▪ Like every F-16, the airframe and avionics are upgradeable. The advantage of these  
        vice current F-16s is newer airframes and better baseline of equipment. Cheaper to
buy these new airframes and upgrade in the future because the internal wiring and computer hardware is newer and better able to handle the increased demands

- 2nd Choice: F-16C Block 52
  - Only guard unit with Block 52s are at McIntire ANGB, SC.
  - New airframes with excellent avionics capability and compatibility with the Active Duty
    - Active Duty instituted a hardware and software program 5 years ago to make all Block 40/42/50/52 aircraft the same. Essentially, the software, computers, and weapons capabilities are the same creating a force multiplier. Now, the Block 50 airframe is not limited to the Suppression of Enemy Air Defense (SEAD) role and can employ Laser Guided Bombs, GPS bombs, and conventional weapons.
    - Consequently, the Block 40/42 airframe has the SEAD mission capabilities allowing the combatant commander to tailor his force not by airframe but by aircrew training
    - Aircraft have the latest in off-board data link cueing systems
    - New airframes mean longer service life

- 3rd Choice: F-16C Block 30 Bi (Big Inlet) or SI (Small Inlet) *(Most likely INTERIM solution w/o Congressional directed/agreed to aircraft buy)*
  - Newer airframe than the current Block 25 flying at Ellington. The airframe and avionics package are the same but the newer airframe and wiring harnesses mean a longer service life and less maintenance cost per flying hour
  - The Block 30 Bi has a General Electric (GE) engine with increase airflow intake, which provides a significant increase in thrust. The small inlet is the same design and engine but with a smaller intake area. Thrust is 10% lower from big inlet to small inlet aircraft however; it is still much greater than the Block 25 or Block 32 aircraft. The increase is so significant that the combatant commander did not want Block 25 aircraft during Operation Iraqi Freedom (OIF) because he questioned the survivability due to lack of thrust.
  - A unit can have a mix of big inlet and small inlet aircraft without affecting pilot training or maintenance
  - The airframe has limited upgrade ability compared to the Block 60, 50+, and 50/52.
  - Ellington will need at least 24 airframes to meet current tasking levels as the Block 30s age and move to "Sunset" status in the next 7-10 years

- The 147th Fighter Wing already possesses the trained workforce, facilities, and weapons to immediately perform a full spectrum ASA mission (Air-to-Air and Air-to-Ground)
  - Proven capability to employ precision weapons at Combat Hammer in May 04
    - Employed all variants of AGM-65s
    - Employed Laser Guided Bombs (LGB)
    - Employed GPS guided munitions (Joint Directed Attack Munitions or JDAM)
    - Best hit percentage seen to date
      - 83% Hit rate with AGM-65
      - 100% Hit rate with GPS-guided munitions
      - 83% Hit rate with LGBs
  - Maintenance personnel built and loaded all munitions; commended by Combat Hammer staff on outstanding weapons buildup and support
IV. Alert Response Issues for Ellington Field ANGB Home-station Alert vs. Detached Alert

Attachment 1 (147th FW Controlled Over-Water Airspace)

Ellington Field Joint Reserve Base • Protecting America's Vital National Assets!
V. Scenarios of Multi-Pronged Threats by Air, Land, Maritime

Preface. We believe the DOD's recommendation to the BRAC Commission to inactivate the 147th Fighter Wing at Ellington Field Joint Reserve Base is wrong. We believe that this full fighter wing is essential to the defense of national, strategic assets located in the Houston-Gulf Coast region.

We further believe that the recommended alternative for two-to-three aircraft and crews on rotational assignments at Ellington is not acceptable. This inadequate alternative will leave the strategic region of Houston and the surrounding Texas Gulf Coast as “unattended”. Homeland Defense of this region is vital to the National Security of America. Refer to the "I. Protecting America's National Assets" point paper for more specifics on the National Security imperatives.

A full wing retention of the 147th FW ANG is crucial to our country’s economic stability.

Purpose. The purpose of this white paper is to communicate to BRAC Commissioners, potential scenarios of multi-pronged attack by air, land and maritime that would provide for ultimate justification of a full wing of F-16 combat fighters in the 147th FW's ASA mission at Ellington Field Joint Reserve Base.

Specifically, America's economic stability depends on Air Sovereignty Alert Site at Ellington, co-located with a full fighter wing of the 147th FW ANG.

Multi-Pronged Terrorist Scenarios

It is very important to understand the nature of the threat that only the 147th's full wing can counter. As the only logical counter to a multi-axis air and/or sea attack on the nation’s strategic infrastructure in southeast Texas, it is easy to picture a scenario that could effortlessly overwhelm an alert detachment of only two aircraft.

Scenario 1: Simple, Routine Scenario

- As part of the air sovereignty mission, the 147th FW's they are often scrambled to investigate aircraft that are not responding or behaving in a way required of them.

- In these instances they often escort these aircraft to landing areas away from strategic infrastructure.

- An alert detachment has no redundancy (back-up) capability should one aircraft, or maritime vessel serve as a decoy for one or more that attack their intended targets.

- There would simply not be enough time to equip and scramble aircraft from Oklahoma, San Antonio, or New Orleans in time to stop the other aircraft.
Scenario 2: Moderate, Multiple Complexity

- While using aircraft as precision guided weapons would be devastating to the national economy if successful,
- an attack on the port may be much more devastating.
- Intercepting and disabling a ship at sea is fairly easy for two aircraft provided they are not occupied with other air or seaborne targets.
- However, two aircraft addressing another threat cannot prevent a hijacked ship from entering the channel where it can be scuttled doing immense damage.
- This is where the experience and knowledge of the area the 147th has is a valuable asset.
- Scrambled fighters from other bases coming to the port to engage targets are not as familiar with choke points or critical infrastructure along the channel as those that fly here every day.

Scenario 3: Complex Synchronized Cell Attacks

- A maritime vessel may carry out a "Texas Chicken" attack in the two-ship-wide Houston Ship Channel, creating a potential blockage of the economically vital passageway.
- A second diversionary attack or incident may occur on the ground, where the first responders may be preventive or may be reactionary. The 147th FW ASA Alert may be required to investigate and engage depending on the vehicle type, threat and potential target.
- All along, the ultimate three targets are strategic and widespread (50-100 NM) oil refinery plants in Baytown and Beaumont, and a key facility on the Intercoastal Waterway.
- Synchronized and timed execution, including remote detonations via cell phones and global positioning system (GPS) technology, by multiple terrorist cells who are each carrying out individually rehearsed scripts by land, sea and air – all first responders will be engaged – local, county, Coast Guard and the 147th FW ASA Alert fighters. Strategic communications will be managed by USNORCOM, DHS/USCG, DHS/FBI and local emergency first responder centers.
- Again, a 2 fighter detachment would not be capable of covering the scenario. The full wing, with readied fighters can react in a manner of minutes, versus the hours that might be required of remote fighters from other states.
Crucial to executing an effective Air Sovereignty response to such scenarios are:

- These are only a few very plausible scenarios that can easily overwhelm an alert detachment.
- The capabilities of F-16 against ships or aircraft cannot be duplicated by Army, Navy, Coast Guard, or Police resources in the Houston area.
- Other Air Force or Air Guard assets are simply too far away to provide an effective counter to these threats or the many other options open to those who wish to attack the strategic infrastructure in the Houston Area.
- The nation needs defensive capabilities at Ellington Field Joint Reserve Base (EF JRB) equal to or exceeding that represented by the 147th’s full wing of F-16’s.
- Too much is riding on the outcome when seconds count.

**Conclusion: Devastating Impact to America’s Economic Infrastructure**

Terrorist cells are patient well trained, and diabolical in their self-education into the “soft targets” that America might provide them.

- Undoubtedly, a 2-3 remote fighter ASA detachment at Ellington would present them with invitation to plan a multi-pronged attack – planned “around” the soft defense of the detachment.
- The 147th FW ANG full fighter wing that is located at Ellington today, keeps the Texas Gulf Coast as a “hard target” to the diabolical, patience of the terrorists that may be in our midst. Let’s keep it “hard”.
- A valuable reminder is that a successful attack to just one of the many strategic high-value assets in the Texas Gulf Coast, in addition to causing local damage, can readily affect $Billions (or $Trillions) of impact to the economic stability of our nation – to America’s National Security.

Again, the EFTF requests that the BRAC Commission vote to reject the BRAC recommendation related to the Ellington Field AGS.
VI. 47th Fighter Wing Aircraft Ramp Space Capabilities

Available Ramp Space
- The 147th Fighter Wing controls and is responsible for over 1.35 million square feet (32+ acres) of recently renovated ramp, hangar, alert, and support aircraft parking space at Ellington Field.
- 457,000 square feet is provided to the 1-149th Army Aviation Regiment via permit, leaving the 147th over 900,000 square feet at its immediate disposal.
- An additional 1.1 million square feet of serviceable ramp and parking space is available from the City of Houston Airport Authority.

Maximum Aircraft Parking Plan
- Using minimum wing tip clearance of 10 feet between parked aircraft, and a minimum of 75 ft between all taxi lanes, the absolute maximum of each type of aircraft that could be housed on the 147th ramp without impacting Army Aviation Operations is summarized below.

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>Dimensions</th>
<th>Number of parking rows</th>
<th>Aircraft per row (90 offset)</th>
<th>Total on Ramp</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-16</td>
<td>32.8' x 47.6</td>
<td>Four (4)</td>
<td>27</td>
<td>108</td>
</tr>
<tr>
<td>F-15</td>
<td>42.8' x 63.8</td>
<td>Four (4)</td>
<td>22</td>
<td>88</td>
</tr>
<tr>
<td>F-22</td>
<td>44.5' x 62.1</td>
<td>Four (4)</td>
<td>21</td>
<td>84</td>
</tr>
<tr>
<td>F-35</td>
<td>34.8' x 50.5</td>
<td>Four (4)</td>
<td>26</td>
<td>104</td>
</tr>
</tbody>
</table>

Preferred Aircraft Parking Plan
- The following table summarizes parking plans using the maximum length/width dimensions for F-16/F-35 and for F-15/F-22 size fighter aircraft and the following assumptions:
  - 70’ spacing between aircraft parking centerlines
  - 100’ interior and exterior or peripheral taxi lanes
  - No impact to Army Aviation Operations.

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>Max Dimensions</th>
<th>Number of parking rows</th>
<th>Aircraft per row (90/45 offset)</th>
<th>Total spots (w/4 alert)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-16/F-35</td>
<td>34.8' x 50.5'</td>
<td>Three (3)</td>
<td>18/16</td>
<td>56/52</td>
</tr>
<tr>
<td>F-15/F-22</td>
<td>44.5' x 63.8'</td>
<td>Three (3)</td>
<td>16/14</td>
<td>52/46</td>
</tr>
</tbody>
</table>

Shelter Capacity
- 23,000 square foot main hangar; sufficient for 8 F-15/F-22 or 10 F-16/F-35
- Immediate capability to shelter 31 aircraft in the following manner:
  - 13 - existing ramp shelters
  - 7 - in the main hangar
  - 2 - under the wash rack cover
  - 4 - in alert shelters
  - 2 - in Fuel Cell Maintenance
  - 1 - in Hush House
  - 2 - in Avionics Calibration shelter
**Bottom Line**

- Per ANGH 32-1084, an F-16 unit with 18 PA1 is authorized 91,800 square feet (10,200SY) of aircraft parking apron.
- Even after allowing for the space provided to the TXARNG, the 147th still has almost 10 times the recommended ramp space available and can support parking of 84 – 108 (depending on type) aircraft under a maximum utilization plan, or 46 - 56 under a preferred parking plan, depending upon the type of fighter.
- Reference Source is the City of Houston, Ellington Field, Master Plan and 147th Fighter Wing CE airfield plot maps.
- Recent photos of 11 WC-130s from Keesler AFB parked on our ramp clearly illustrates the available space and completely refutes the BRAC data stating that we have only enough space for one squadron of fighters.
NOTE: 2 aircraft are flying missions during this photo. Spaces are clearly there for at least three additional WC-130s without impacting non-military ramp space.
NOTE: Various views showing Ellington surge capacity.
VI. 147th Fighter Wing Aircraft Ramp Space Capabilities

NOTE: Various views showing Ellington surge capacity
VII. A-10s Don’t Satisfy Mission for 147th Fighter Wing

Analysis

- A roundtable discussion and analysis by squadron pilots, including weapons officers and weapons test pilots, experienced in multiple fighter and attack aircraft, produced the following points concerning deficiencies in operational, maintenance, training and combat readiness capabilities of the 147th Fighter Wing in the event of transition to the A-10 aircraft.

Alert Mission Performance and Weapons Employment Capabilities

- No Air-to-Air Radar or Radar Guided Missile
  - Designed as a VFR attack aircraft optimized against ground based armored targets (tanks) but with extremely limited air-air capability (AIM-9M, GAU-8 gun). A-10 aircraft would be singularly dependent on NORAD Ground Controlled Intercept (GCI) to find potential targets. Communication intensive nature of a close-control intercept has probable negative impact on other NORAD missions or alert scrambles in a multi-threat/axis/attack scenario.
  - In the event of communications failure, interruption or degradation, the A-10 would be forced to execute a visual-only intercept (Especially difficult in a likely over water scenario due to haze/humidity and sheer volume of area to search). Most intercepts at low altitude require F-16 to track via on-board radar vs. NORAD control due to limited low altitude communications and radar capability.
  - No Radar Guided missile capability results in relying on a limited potential to employ AIM-9 heat-seeking missiles; especially difficult against low altitude, low-heat signature, propeller-driven aircraft, and air-to-surface or surface-to-surface missiles.

- Slow Speed (relative to F-16) Impact on Reaction and Response Time
  - 147th FW F-16’s can be on-scene at Crawford Ranch to protect POTUS within 20 minutes from takeoff, with a minimum of 2 hours loitering capability at max endurance airspeed. If required, they can be there even sooner depending upon desired/required loiter time. A-10s launched at the same time would not be on-scene for a minimum of thirty-five minutes (based on 300 knots).
  - Because of slow-speed, the target (aircraft/missile) could potentially OUTRUN the A-10 and/or negate AIM-9M/GAU-8 employment due to the very small weapons engagement zone.
  - NORAD response time requirements would have to be reevaluated to allow for a much slower and slower-speed intercept, potentially allowing Hostile aircraft to approach much closer to US/Port of Houston Strategic targets.
Joint Training Environment

- 147th F-16’s are the only locally available high performance aircraft to support the training of the new generation of Air Force FAC assets at Fort Polk, LA
  - 147th aircraft flew 634 sorties in support of Joint Training on an almost daily basis from Jan 03 – Apr 05. 480 sorties alone were flown from Ellington Field and dedicated towards Joint Training at the Ft Polk, LA, Ft Sill, OK and Ft Hood, TX, complexes.
  - Currently, the most vital mission in Operation Enduring Freedom and Operation Iraqi Freedom is Close Air Support (CAS) with Forward Air Controllers (FACs). FAC’s perform their qualification training at Fort Polk, LA. F-16’s from Ellington are the only locally available high-performance asset to train with on a regular basis.
  - Air Combat Command spends $100,000 - $125,000 to deploy F-16’s into the region to conduct training at Ft Polk during Air Warrior II exercises. Only 9 of the 13 annual Air Warrior II exercises are funded. The unfunded exercises are directly reliant on 147th aircraft for conduct of training.
  - Unless A-10s would be used and trained to be used in an Anti-Surface-Warfare (SEA) mission, where again it lacks a RADAR for sea-surface surveillance and attack capability, Ellington would effectively lose over 10,000 square miles of unused high-altitude Air-to-Air airspace in W-147A/B/D, as well as the ability and commonality of joint-training with other high-performance fighters, such as F-15, F-16 and F-18 aircraft from New Orleans, Dallas and San Antonio.

Bottom Line

- The A-10 was never designed as an Air-to-Air weapons system
- A-10 Air-to-Air capabilities are designed as defensive in nature only
- Based on these identified deficiencies, the Air Sovereignty Alert (ASA) mission cannot realistically be accomplished by the A-10 attack aircraft
- The lack of an A/A RADAR, RADAR-guided missile, and extremely slow tactical speed, significantly degrades the defense of Houston, Texas and our Nation
- A-10s at Ellington would also significantly decrease the rich and diverse joint training environment currently available, as well as negatively impact the availability of quality training for FAC’s preparing for combat operations.
VIII. Homeland Security Center

Homeland Security Concerns

Southeast Texas and the Houston area specifically are home to many terrorist targets which have been referred to as the FBI-9 to include petrochemical plants (40% of national supply), refineries (25% all refined products, 24% aviation), Port of Houston, Texas Medical Center, NASA, nuclear plant, 4th largest city, high capacity sports venues, and other targets. These have been described in detail in other documents submitted by the Ellington Field Task Force.

The terrorist threat can come from the air, sea, and land. We have examples: the attacks on 9/11 against the World Trade Center in New York and the Pentagon; the attack on the USS COLE; and the recent attacks in London. It is not possible to guard against all scenarios, but a considered layered defense may be able to thwart many attacks. This layered defense could include enhanced intelligence activities, active deterrence, improved security, use of new technologies, and so forth as well as greater cooperation between the military and law enforcement authorities at the national, state and local levels.

The principal military forces in Southeast Texas that have a responsibility to provide immediate response are the 147th Fighter Wing and the Coast Guard. The 147th Fighter Wing provides an Air Sovereignty Alert posture with aircraft ready to launch to intercept any suspicious aircraft whether they come from domestic or foreign locations. With the full Wing, an upgraded posture can be immediate as additional aircraft can be brought on line. The very visible full Wing also provides a deterrence that makes the National Strategic Targets in the region “hard targets” rather than “soft targets” as would be the case with just an Air Sovereignty Alert detachment which is not visible and does not have defense in depth.

The Coast Guard has responsibility for the Maritime threat environment. The Coast Guard conducts active patrols; boards arriving vessels; works with port and facility security officials to prevent land and waterborne attacks; among other efforts. The Coast Guard has a Maritime Safety and Security Team (similar to SWAT team) to respond to emergencies. Coast Guard Air Station Houston is scheduled to get MH-65 armed helicopters in FY2008. However, regardless of the efforts of the Coast Guard, the service needs “backup” when a threat is larger than what the Coast Guard is able to handle and that would be the Air-to-Ground/Surface capabilities of the 147th Fighter Wing. Rules of Engagement for Air activity against surface vessels are being developed.
Regional Homeland Security Headquarters and Operations Center

The Ellington Field Task Force has recommended a Department of Homeland Security regional headquarters because of the terrorist target set in the Houston area and the obvious benefit of having Homeland Security agencies being co-located.

- **DHS/All agencies** – The headquarters elements of the various Department of Homeland Security Agencies should be moved to Ellington Field to enhance coordination, to improve security by being inside the secure boundary of Ellington Field, and to give up leased commercial facilities.

- **DHS/USCG** – Coast Guard Air Station Houston is currently located at Ellington Field with four HH-65 helicopters, but other units should be added. Primary among them is the Coast Guard Sector Command which is scheduled to be established October 31, 2005 and will be located at the Coast Guard Marine Safety Office in the Port of Houston at this time. The Maritime Safety and Security Team, currently located in Galveston should be moved to Ellington Field so they may reap the benefits of being co-located with other military units and the potential for rapid deployment as necessary.

- **DHS/ICE** – Immigration and Customs Enforcement has a fleet of 10 aircraft used in homeland security and counter-drug missions located north of Houston. That unit should be moved to Ellington Field for greater coordination with other DHS units.

- **DHS/Proposed Regional Homeland Security Operations Center** – The DHS regional headquarters would have an operations center to be used in conjunction with the 147th Fighter Wing’s Military Command Post, the only such 24/7 establishment in this region of the country. The DHS Operations Center would include all DHS law enforcement agencies so they may coordinate intelligence and operations. A Special Compartmented Information Facility (SCIF) is available through SkyPort International which would allow highly sensitive information to be processed.

- **DHS & DoD Approach** – The combination would allow the 147th Fighter Wing and the Coast Guard to maintain a threat picture of the air and maritime approaches to the Texas coast.

- **Coordinated DHS, DoD, Civil Approach** – With additional Department of Homeland Security agencies the threat picture would include terrorist threats by air, land and maritime. The center would also have provisions for state and local homeland security agencies to enhance the sharing of information and conducting joint operations. Since the target set centers around major industries, provision should be made for their participation in the center. FEMA would round out the agencies and would be able to utilize this center for their responsibilities in hurricane evacuations.
- **Predator UAV Squadron** – Recent information indicates that a Predator UAV Squadron will be assigned to Ellington Field. Should that take place, the unit could be of great assistance in the homeland security missions. With direct access to the coast UAVs could be used in the coastal waters and offshore approaches to the Texas coast as well as along the Southwest Border to conduct real world operations and training in support of the homeland security mission. The control center for the squadron should be colocated with the command post/operations center/Battle Projection center for synergistic benefits. Coast Guard and other DHS law enforcement agencies could be utilized in the deployment and operations of the UAVs. The communications requirements of the UAV squadron could be satisfied by the capabilities of SkyPort International located adjacent to the Ellington Field military reservation and will be inside the fence line once the military reservation is increased with the move of the Army, Navy and Marine Corps reserve units to Ellington Field.

- **Joint Center of Excellence for Homeland Defense and Homeland Security** – The 75th Division (Training Support) is moving to Ellington Field. Their mission is to train Army Reserve and National Guard personnel prior to deployment. An element of the 75th Division (Training Support) is the Battle Projection Center which should be used in conjunction with the above command and operations centers to develop a world class Homeland Defense and Homeland Security Center of Excellence to simulate and exercise scenarios related to terrorist attacks.