



BRAC 2005 - Query Response Manager



Response to E0553

Question:

Operational and environmental questions received from the Commission

Answer:

Our responses are included in the attachment.

References:

Approved By:

A handwritten signature in black ink, appearing to read "K. Weave", written over a horizontal line.

Date: 18-Aug-05

General

1. Given the following bases: Fort Hood, Fort Bliss, Fort Sill, Fort Carson, what is the amount of acreage(from the totals provided in the analysis), that is not maneuverable based on environmental issues, soil composition, or other factors? What are the largest contiguous maneuver boxes within these base locations? (Pls break out Ft Carson from PCMS.)

Response: *The separately attached table provides a detailed breakout of total installation acreage, mounted and dismounted space, largest contiguous space, and the constrained “non-maneuver” space which is a combination of duded impact areas, environmentally sensitive areas, and cantonment areas.*

Installation	Total Installation Acreage	Constrained / Non Maneuver Land	Mounted (Hvy) Acres	Dismounted (Lt) Only Acres	Total Maneuver Acres	Contiguous Mounted Acres
FORT BLISS	1,118,734	126,431	337,382	654,921	992,303	303,926
FORT CARSON	137,404	7,903	114,541	14,960	129,501	89,838
PINON CANYON	235,896	528	179,116	42,507	235,368	148,534
CARSON & PCMS	373,300	8,431	293,657	57,467	364,869	148,534
FORT HOOD	214,570	77,658	119,499	17,413	136,912	63,869
FORT SILL	93,829	47,425	39,979	6,425	46,404	14,505

Fort Bliss

Environmental

2. Water capacity. The data provided in the environmental impacts section of the recommendations indicate there are potential water supply issues at Fort Bliss. However, based upon the information obtained during the site visit, there appears to be adequate water supply to sustain an increase in troops at the base. The Fort Bliss drinking water supply is obtained from wells and the El Paso Water Utilities Public Service Board. The El Paso area relies upon both surface water and groundwater to supply potable water to residents. To augment the future water rights the City has purchased over 30,000 acres in and around El Paso and an additional 70,000 acres further east, which will apparently provide the El Paso area with the ability to obtain additional groundwater resources in the future. In addition the City has been working with the local community to reduce water use through conservation plans and the use of gray water for irrigation of golf courses and other types of large landscaped areas. We also learned that the El Paso Water Utilities Public Service Board plans to start construction this summer on a 27.5 MGD desalination plant that will be located on a leased portion of Fort Bliss. This plant will tap into a large groundwater source that is currently not usable without treatment. Please confirm that the above information is correct and provide a summary of the actions Fort Bliss will use to provide for an adequate water supply in the future.

Response: *The activities planned by the City of El Paso and described above, clearly indicate that regional water supply issues are present. The Army can confirm that plans are progressing for the construction of a desalinization plant on the land leased to the City, on Fort Bliss. The plant is designed to produce 27.5 MGD of drinking water, with construction starting in 2005 and completion in 2007. The Army believes that with the construction of the desalination plant, implementation of the City’s programs described above, and partnering/consultation between Fort Bliss and the city of El Paso, the region will have sufficient water supplies to meet future needs.*

3. Air Quality. The data provided in the environmental impacts section of the recommendations indicate there are potential air quality impacts if the recommendations are implemented. Based upon information provided as of 2003 El Paso was in non-attainment for ozone. However, based

on the new 8 ozone hour standard the city is now considered to be in attainment. It appears the state is planning to petition EPA to show El Paso is in official attainment for carbon monoxide and the current non-attainment for carbon monoxide does not include Fort Bliss. El Paso is also listed as non-attainment for PM 10 (a particulate based standard), however based upon information in the State Implementation Plan, Fort Bliss training exercises appear to be exempt. In addition we learned that Fort Bliss has made some changes to maneuvers to reduce dust generation within the city limits of El Paso. There is the potential that activities while moving to maneuver areas, could be limited to prevent the generation of large dust clouds that would impact the cities attempt to meet the PM 10. Please confirm that the above information is correct and provide a summary of the actions Fort Bliss will use to ensure air impacts will be limited.

Response: *Air quality data for Fort Bliss was collected during the BRAC Data Call, and environmental analysts primarily considered particular data fields for questions #211 and #213 in their assessments. These particular data fields were meant to capture the attainment status for NAAQS criteria pollutants for only the installation. The data provided by Fort Bliss in these data fields included the attainment status for both Fort Bliss and El Paso accompanied by explanatory comments contained in another comment data field that was not typically considered in assessments. Since Fort Bliss reported a non-attainment status for carbon monoxide, ozone, and particulate matter in these particular data fields for question #213, the assessment and therefore the environmental impact section of the recommendation reflected this non-attainment status. This is an unusual circumstance where the Installation is in a different attainment status than the adjoining city. After reevaluating the Installation data, and considering the comments provided in the comment data field, and checking current attainment data on EPA's website for El Paso County ("partial" attainment status shown), the Army can confirm that Fort Bliss is in attainment for CO and PM10. As for ozone, the assessment reflects the FY03 baseline data and does not account for changes in attainment status since that date.*

Air impact mitigation measures would be considered in the implementation stage of BRAC recommendations. Across the Army, installations employ a variety of dust suppression measures that are used during maneuver training. We expect Fort Bliss will employ a variety of techniques to reduce dust production and ensure safety.

Operational

4. Is it correct that local AMD training strategy, not TC 25-1 dated April 04, identifies the requirement to maneuver Patriot BNs 4 times per year?

Response: *We are not familiar with local air and missile defense training documents. However, the documented TC 25-1 requirement for a Patriot battalion is three times per year and four times a year for Stinger and Avenger. Per information provided by the Army G3, Training Directorate, the current Army approved annual Combined Arms Training Strategy (CATS) requirements consist of one Bn FTX and two Battery FTXs per year.*

5. I am interested in the training strategies of the ADA BDEs in GE and ROK. They are not at Bliss. How do they train to their wartime tasks?

Response: *Their training strategies are based on Army Approved CATS, commander's guidance, WARPLANS, The Army Plan (TAP), National Military Strategy (NMS), and the units Mission Essential Task List (METL). Like the ADA units at Fort Bliss, they use a mix of live, constructive, and virtual training to maintain combat readiness. The Patriot system in particular has a robust set of training devices and most unit training is constructive.*

6. Describe the simulation required/used in a Patriot unit as part of the Army's training strategy of Live/Virtual/Constructive. How do they remain operationally ready to accomplish their wartime tasks using that strategy?

Response: *Most all Patriot crew and unit training is done in a constructive or virtual environment. There are no live-fire missile fire requirements. Instead, the Patriot system relies on a set of very robust training devices in garrison and in the field to maintain combat readiness.*

Presently, six Patriot-peculiar training devices are available for use by units. Page 1-5 of FM 3-01.86, the Air Defense Artillery (ADA) Patriot Brigade Gunnery Program, dated September 2004, provides a detailed description of each. Three of these are simulation capabilities associated with Patriot necessary for Initial Entry Training, unit training, and Joint training.

The Patriot system has embedded training capabilities, such as the Patriot Troop Proficiency Trainers (TPT). The TPT allows the operator to sustain operational skills in garrison or in the field without external training devices. Patriot's embedded simulation allows a Battalion and its subordinate Batteries to train IAW FM 3-01.86.

Patriot Conduct of Fire Trainers (PCOFTs) are used to train Initial Entry soldiers prior to being assigned to a Patriot unit. They are also used extensively by Operational Patriot units for crew training to maintain basic level skills. The PCOFT is a fixed facility simulation designed to facilitate student/teacher interaction. It is the primary tool used in the ADA school to train new soldiers. One PCOFT can simulate up to four battalions.

The Flight Mission Simulator - Digital (FMS-D) is a digital real time virtual simulator of the Patriot radar set (RS) and missile. It injects simulated, threat representative air tracks into the tactical engagement control station (ECS) by simulating the RS message formats and electronic interfaces. It allows Soldiers to operate on their tactical equipment while integrating with the Joint Command and Control nodes (such as Air Force CRC, Marine TAOC, and Navy AEGIS) to conduct rigorous Joint training and standardized air battle training.

While not in current Army ADA doctrinal manuals or recognized as an official Army training system or device, units at Fort Bliss have also procured a means to export the FMS-D capability using the Drive-Up System Training (DUST) facility (fixed site) and JNTC connectivity or other communication linkages to remote or home station sites. Fort Bliss is a JNTC site and the Drive-Up System Training Facility (DUST) is the primary user of that capability. The DUST also supports Combatant Commander exercises such as Roving Sands, Foal Eagle, and Juniper Cobra. This could potentially be exported to Fort Sill as well.

The On-Line Training Mode (OTM) is a software program that is individually written toward a specific tactical scenario or event to train crew members.

The Patriot Live Aircraft Trainer (LAT) is a version of the tactical Patriot software modified to track live targets and simulate their engagement.

The Missile-Round Trainer (MRT) duplicates the external features and handling characteristics of the Patriot guided missile canister.

With these training devices, Patriot units can use distributive, interactive, simulation capabilities while also training in the field environment to enable them to accomplish their wartime tasks.

7. What are the training requirements of an Avenger battery? How many platoons in a battery, batteries in a BN? What are their doctrinal maneuver acreage requirements?

Response: Like Patriot, the Avenger system has several training devices including the Avenger Troop Proficiency Trainer (TPT) that provides real time, free play, and interactive simulation. It is used in conjunction with tactical equipment at unit level to train and sustain crew engagement skill. The Captive Flight Trainer is an actual stinger missile without rocket motor and warhead. The guidance section provides realistic target engagement training for Avenger teams in the field. Doctrinal Avenger platoon maneuver acreage requirements, as listed in TC 25-1, are 5 km by 5 km or 25 km² for the key unit tasks of providing air defense for static and mobile assets and of a task force. The requirement for a battery is 6 km by 20 km or 120 km² for the task of providing air

defense for divisional assets. However, current Army force structure changes will inactivate all the divisional ADA battalions and subordinate Avenger batteries prior to 2010. The composite AMD battalions are proposed to have one Avenger battery or its replacement with three platoons.

8. What is the projected composition of the ADA BDE that would go to Ft Sill?

Response: *The Air Defense Artillery brigade that is recommended to move to Fort Sill in the Operational Army (IGPBS) recommendation is a Patriot brigade with two composite air and missile defense (AMD) battalions.*

Fort Hood

Environmental

9. Please confirm the following information. We understand the base has worked with the local community to better define potential encroachment areas. The base feels that a buffer zone is established along the southern boundary of the base with the cantonment area, highway 190 and the cities along the main route into the base. Along the western boundary the base has worked with major landowners and established an easement to restrict the type of construction along the base boundary. How has the base dealt with encroachment issues?

Response: *The TABS Office currently does not have the necessary data at its disposal since this site specific question was not part of the BRAC Data Call. The Army is in the process of soliciting information from Installation personnel and from Army Subject Matter Experts and will provide a more detailed response by 20th of August. At this time the Army can provide information that was collected through the FY03 BRAC Data Call. The relevant FY03 data for Fort Hood shows that Fort Hood is projected to experience "moderate encroachment" and in FY03 no Noise Zones extended offsite.*

10. Fort Hood has claimed that in 2005, 37,000 acres of additional maneuver acreage is now available resulting from a reassessment of species restrictions within this space. Please certify this fact for the Commission and identify its location, and type, either heavy maneuver acreage, light maneuver acreage, or not suitable for maneuvering units.

Response: *The Army used certified data provided by the garrison and senior mission commanders in its BRAC analysis. While we understand that this additional acreage was made available in March of 2005. We were not aware of it until after the BRAC recommendations were approved by the Secretary of Defense and forwarded to the BRAC Commission. As we understand it, the land is actually a part of the Fort Hood military installation and would not represent an increase in the total acreage of Fort Hood, only the available maneuver training land. This land is now available since it was recently redesignated from Core Habitat land to Non-Core Habitat land. Theoretically, this would give Fort Hood approximately 174,000 of total available maneuver training land. However, we also understand that only approximately 5,000 acres of this land is actually heavy maneuver land and not contiguous with the primary battalion-size maneuver box. Using the same doctrinal methods we used to calculate capacity at all installations, Fort Hood would still have a significant shortage of available maneuver training capacity with five Brigade Combat Teams permanently stationed there.*

11. How has the base been able to work around habitat issues that restricted use of these acres? What type of habitat management changes has the base been able to implement to open up restricted training lands? Describe the work the base has done to work with local land owners to enhance habitat and increase training opportunities

Response: *The TABS Office currently does not have the necessary data at its disposal since this site specific question was not part of the BRAC Data Call. The Army is in the process of soliciting*

information from Installation personnel and from Army Subject Matter Experts and will provide a more detailed response by 20th of August.

Fort Carson

Environmental

12. Information provided in the Installation Environmental Profile indicates there noise contours that extends off the installation's property. Of the 18,008 acres that extend off-base property, 7871 acres of incompatible land uses. Please describe the type of land use impacted and how densely populated the area is. Does the Fort Carson Compatible Use Buffer have any impact on this area? What areas surrounding the base are planned for this buffer zone?

Response: *The TABS Office currently does not have the necessary data at its disposal since this site specific question was not part of the BRAC Data Call. The Army is in the process of soliciting information from Installation personnel and from Army Subject Matter Experts and will provide a more detailed response by 20th of August. At this time the Army can confirm that the Installation Environmental Profile for Fort Carson does show that there are 7,692 acres of Noise Zone II contours and 179 acres of Noise Zone III contours that extend offsite over with areas with incompatible land uses.*

13. Information provided in the Installation Environmental Profile indicates there are threatened and endangered species (TES) present. How many TES are present? How do the TES impact use of the on-base maneuver space and Piñon Canyon Maneuver Site (PCMS)? How has the status of the TES changed over the last five years such that they are easier or harder to manage with respect to maneuver space?

Response: *The TABS Office currently does not have the necessary data at its disposal since this site specific question was not part of the BRAC Data Call. The Army is in the process of soliciting information from Installation personnel and from Army Subject Matter Experts and will provide a more detailed response by 20th of August. However, the Army can provide the information reflected in the Summary of Scenario Environmental Impacts (SSEI) for USA-0224R, to provide a partial response.*

The SSEI for USA-0224R notes that Fort Carson has three Threatened and Endangered Species: 1) Mexican Spotted Owl; 2) Greenback Cutthroat Trout; and, 3) Bald Eagle. These species restrict operations on less than 1% of installation's land. Specifically, the Spotted Owl habitat restricts use of off-road vehicles and placement of bivouacs within 200-meters of known winter roost trees. Approximately 38 trees are impacted for a total of 1,178 affected acres. These Spotted Owl restrictions are in effect from 15 November thru 28 February. The Greenback Cutthroat Trout affects approximately 15 acres that are not considered training areas.

Operational

14. What is the cost to move a full brigade combat team to Piñon Canyon Maneuver Site under the current MTOE configuration? What will be the costs to move a modularized BCT to Piñon Canyon?

Response: *The current cost to move a heavy brigade from Fort Carson to Pinon Canyon by rail is \$615,000. The cost to road march the wheeled vehicle is \$65,000 to and from Fort Carson for a total round trip cost of \$680,000 per brigade. The estimated cost for a new modular BCT is \$717,000.*

Fort Bragg

Environmental

15. During a commission visit to Fort Bragg, the garrison commander described encroachment issues related to the justification to move the 7th SFG to Eglin. Pls describe and certify these issues and provide graphics, if available to highlight the situation.

Response: The TABS Office currently does not have the necessary data at its disposal since this site specific question was not part of the BRAC Data Call. The Army is in the process of soliciting information from Installation personnel and from Army Subject Matter Experts and will provide a more detailed response by 20th of August. However, the Army can provide the information reflected in the Summary of Scenario Environmental Impacts (SSEI) for USA-0224R, to provide a partial response.

However, at this time the Army can provide a partial response based on the information that is reflected in the Summary of Scenario Environmental Impacts (SSEI) for USA-0040. In this SSEI in the row titled "Land Use Constraints/Sensitive Resource Areas", projected encroachment was highlighted as a "moderate" concern for Fort Bragg. This finding was based on a complex and comprehensive study conducted by the US Army Corps Construction Engineering Research Laboratory that ranked Army installations by projected encroachment rates. In addition, the Army noted that noise contours were extending offsite into areas that had incompatible land use

Operational

16. What is the current number of paid parachute positions located at Fort Bragg? (include all conventional, Air Force, and Special Operations forces) What will be the number at Fort Bragg if all DoD BRAC recommendations are approved?

Response:

Eglin AFB

Environmental

17. Are there any known or anticipated environmental concerns (species, water) at Eglin AFB, which might prevent/hinder the move of the 7th SFG to that base?

Response: During recommendation development the Army requested that the Air Force provide a Summary of Scenario Environmental Impacts (SSEI) describing the potential environmental impacts of moving the 7th. SFG to Eglin AFB. The Air Force completed the SSEI and the Army included this SSEI in the supporting material for Recommendation USA-0040. Please see Attachment 1 to find the Air Force SSEI. Additional questions on potential environmental impacts should be directed to the Air Force.

Fort Sill

18. Are there any radar attenuation restrictions at Ft Sill that would not allow Patriot or Avenger units to adequately train to their wartime mission?

Response: There are no known restrictions that would prevent or hinder Patriot or Avenger training at Fort Sill. The only requirement is for a safety zone of approximately 100m for Patriot radar. This safety restriction applies at all locations is not expected to impact training at Fort Sill.

19. MLRS units train at Fort Sill. Their training and maneuver requirements are similar to that of Patriot and Avenger units. Please comment on how an MLRS training strategy at Sill might suggest an adequate training environment for an ADA Brigade consisting of Patriot and Avenger. Will an ADA BDE be able to conduct its tracking and acquisition training at Fort Sill? Will it be limited to simulation training to accomplish these tasks?

Response: Training and maneuver land requirements for artillery units and air defense units, including Patriot are similar. In both cases, the dispersion of the units is a factor that is different from typical maneuver units like armor and infantry. Patriot and the Army's Multiple Launch Rocket System (MLRS) do not maneuver across the terrain and directly engage the enemy. Typically, MLRS moves behind the maneuver force and provides fire support. ADA is typically tasked with

either supporting the maneuver force or providing air and missile defense for a fixed asset. The maneuver area requirement for an MLRS battalion is 30 km by 18 km or 540 km². This is comparable to a Patriot battery requirement of 10 km by 30 km or 300 km². Additionally, the artillery at Fort Sill also includes target acquisition units equipped with the Q36 and Q37 radars. The radar locates enemy artillery when it fires and provides coordinates for Army artillery units to provide counter-fire. While these radars are different from Patriot radar, they both cue the weapons systems and aid in target acquisition. Again, though not exactly the same, the tactics, techniques and procedures of artillery and air defense units are similar. While the vast space of Fort Bliss would be ideal for any type of unit, the same is not true for Fort Sill. Fort Sill has five major impact areas that are not cleared for ground maneuver. The land covered by these restricted areas is approximately half of the 94,000 acres of the Fort Sill military installation. The remaining 46,000 acres of maneuver training land is not compatible with large armor or infantry unit requirements. However, it is very compatible for the movement and positioning of artillery and air defense units around the restricted areas and supports doctrinal distance requirements. The installation stretches over 44 kilometers from east to west and averages 10 kilometers wide from north to south. This would allow artillery and air defense units to disperse across a wide area. ADA battalions will be able to train in both a live and constructive environment at Fort Sill and not have to rely exclusively on simulation to train there.

It is important to note that most of the Army's installations do not meet maximum doctrinal maneuver requirements for certain units. For example, the requirement for an armored cavalry squadron is 60 km by 90 km or 5400 km². Fort Hood, one of the Army's premier maneuver installations, fits inside a box of 38 km by 40 km or approximately 375,000 acres. The actual installation is only 215,000 acres with less than 140,000 heavy maneuver acres.

The size of the training areas and the number of units assigned there must be considered in combination. Too many units vying for the same land would force them to rely more on simulation and potentially degrade combat readiness. Currently, there are five Artillery brigades at Fort Sill. The Operational Army (IGPBS) recommendation moves one brigade headquarters and an MLRS battalion to Fort Bliss. Recent Army decisions will inactive two other Artillery brigades along with two MLRS battalions at Fort Sill. The Army's proposed end state for Fort Sill is a consolidated Net Fires Center and School, one ADA brigade, and two Fires brigades. Fort Sill has sufficient capacity to meet the requirements of these units.

ATTACHMENT 1

Summary of Scenario Environmental Impacts - Criterion 8

Scenario ID#: USA0040

Brief Description: Move 7th Special Forces Group (SFG) from Fort Bragg to Eglin AFB

<u>General Environmental Impacts</u>	
Environmental Resource Area	Eglin AFB
Air Quality	An air permit revision may be needed.
Cultural/ Archeological/ Tribal Resources	The base has 1,930 archaeological sites, and a high potential for archaeological sites, but they do not constrain operations. An Indian tribe has been in formal consultation within the past two years regarding the archaeological sites. Historic properties and districts exist but do not constrain operations. Additional operations could impact these sites, which would impact operations.
Dredging	No impact
Land Use Constraints/ Sensitive Resource Areas	Operations are already restricted by electromagnetic radiation and/or emissions. Additional operations may further impact constraining factors and therefore further restrict operations. Sensitive resource areas exist, but do not constrain operations. Additional operations may impact these areas and therefore restrict operations. Military Munitions Response Program sites exist on the installation and may represent a safety hazard for future development. The base uses safety waivers and exemptions to accomplish the mission. Additional operations may compound the need for safety waivers.
Marine Mammals/ Marine Resources/ Marine Sanctuaries	No impact
Noise	Noise contours may change as a result of the change in mission, and may be impacted primarily from blast noise and vehicle and helicopter noise.
Threatened& Endangered Species/ Critical Habitat	11 T&E species and 2 critical habitats exist and impact operations on 78% of the installation. Operations/testing/training have been delayed or diverted to meet mission requirements. Additional operations may further impact T&E species and/or critical habitats. Endangered Species Act Consultation is required for all T&E species.
Waste Management	The installation is not operating at the maximum permitted capacity for its RCRA Subpart X permitted facility.

ATTACHMENT 1

	Modification of the hazardous waste program may be necessary.
Water Resources	The state requires a permit for withdrawal of groundwater. Potable water controls/restrictions were implemented on 1,825 days from FY99 through FY03. Modification of on-installation treatment works may be necessary.
Wetlands	Wetlands restrict 13.53% of the base, and operations are restricted by their CWA Section 404 permit. Additional operations may impact wetlands and the permit, which may further restrict operations.

<u>Impacts of Costs</u>	
Eglin AFB	
Environmental Restoration	DERA money spent through FY03 (\$K): 72200 Estimated CTC (\$K): 35142 DO NOT ENTER IN COBRA
Waste Management	FY07 Hazardous Waste Program \$100K
Environmental Compliance	FY06 NEPA cost: \$400K FY07 Air Permit Revision \$50K