



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC

13 April 2006

HQ USAF/SG  
1780 Air Force Pentagon  
Washington, DC 20330-1780

The Honorable Ike Skelton  
Ranking Minority Member, Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515-6035

Dear Mr Skelton

Thank you for your recent inquiry regarding the Air Force Medical Service unfunded requirements for fiscal year 2007. The attached list contains both unfunded clinical project requirements and unfunded military construction requirements. We have prioritized the requirements within each area.

We appreciate your leadership and continued support of the Department of Defense Health Program. Please contact us if you require additional information concerning these individual projects.

Sincerely

A handwritten signature in black ink, appearing to read "George Peach Taylor, Jr.", written over a faint, larger version of the same signature.

GEORGE PEACH TAYLOR, Jr.  
Lieutenant general, USAF, MC, CFS  
Surgeon General

Attachments:

1. AFMS FY 07 Summary
2. Issue Papers

Cc:

DASD(HB&FP)  
SAF/FM  
SAF/LL

<b>Air Force Medical Service FY07 Unfunded Requirements List</b>
<b>\$s in Thousands</b>
<b>(\$000)</b>

<b>AFMS FY07 Unfunded Project Requirements</b>	<b>UFR Amount</b>
1-Assessment Demonstration Center	\$1,600
2-AFMS Referral Management Center	\$2,280
3-Avian Flu	\$15,000
4-Brain Acoustic Monitor	\$1,132
<b>Total</b>	<b>\$20,012</b>

<b>AFMS FY07 Unfunded Milcon Requirements</b>	<b>UFR Amount</b>
1-Tinker Clinic Replacement	\$66,000
2-Spangdahlem Clinic Replacement	\$62,000
3-Bioenvironmental Engineering Facilities Replacement (Eglin, Dover, Kunsan, and Seymour-Johnson)	\$10,800
<b>Total</b>	<b>\$138,800</b>

<b>Total UFRs (Projects + Milcon)</b>	<b>\$158,812</b>
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## Assessment and Demonstration Center

- The Assessment and Demonstration Center (ADC) is Congressionally funded:
  - \$3.4M in FY05
  - \$1.7M in FY06
- Supports emerging technologies, techniques, tactics, and processes that might be beneficial to providing crucial support to deployed and CONUS-based forces.
- Provides a controlled environment to examine the adequacy of the information technology infrastructure to support medical operations during Expeditionary Force Deployments and Homeland Security operations.
- Enables Air Force Medical Operations Agency (AFMOA – Health Modeling and Informatics) AFMOA to optimize medical resources in light of the increased system burdens created by Expeditionary Force Deployments, Homeland Security, skyrocketing medical costs, reduction in the retention and recruitment of qualified medical service personnel, and an increasing beneficiary population.
- Using a COHORT approach to analysis – i.e. sub-population analysis for early warning and/or trend identification.
- The ADC provides AFMOA a centralized facility to apply assessment techniques and technologies with capabilities to analyze medical operations, including:
  - Reducing purchased care outlays, service recapture, and increase third party collections
  - Projecting impact to personnel from NBC and other weapons effects
  - Overlaying medical information on military deployments to provide commanders medical situational awareness
  - Analyzing non-material solutions and low-cost investments to increase radiologist productivity
- Current projects being worked under the umbrella of the ADC include:
  - Composite Operational Health & Occupational Risk Tracking System (COHORT)
  - Community Based Surveillance (CBS)
  - Portable Remote Medical Collection Relay Capability (PRMCRC)
  - Integrated Clinical Database (ICDB)
  - Direct Real-Time Secure Collaborative Application/Analysis Sharing Environment (DRS-CASE)
- Future Plans for the ADC include:
  - Establish an overarching management cell to provide executive leadership
  - Conduct analysis to identify clinical healthcare outcomes and administrative patterns and trends

## BULLET BACKGROUND PAPER

ON

### AIR FORCE MEDICAL SERVICE REFERRAL MANAGEMENT CENTERS (RMC)

#### **BACKGROUND:**

- In FY04/05, the AFMS funded RMCs at 74 Military treatment facilities (178 contract FTEs: RNs, LPNs, and administrators)
- Provides Centralized Referral Management reviews, patient education and questions, initial specialty appointment booking, and interface with TRICARE contractors
- RMC recaptured referrals (valued at \$4.3M) that would have gone to the TRICARE network (private sector care). Annual ROI 170% based on current deployments.
- Demonstrated tangible and intangible return on investment, time/efficiency savings for Primary Care Managers clinical teams
- Funded \$7.6M in FY06

#### **IMPACTS:**

- Unable to adequately meet requirement to scan over 700K network results per year into AHLTA (clinical record)
- Without automated solution; Referral Management continues to be a human/manual intensive process
- Potential to place increased Referral Management level of effort at Military Treatment Facilities vs. TRICARE Contractors

## PANDEMIC INFLUENZA PREPAREDNESS

**Executive Summary:** Around the world nations are preparing for an expected influenza pandemic that is likely to originate from Avian Influenza. The impact of this pandemic is expected to be devastating with the US alone anticipating up to 200 million persons infected, a mortality rate of up to 50%, and an economic impact resulting in a shrinking of the global economy by up to 12.5 percent. Based on the implications of this type of threat from both a national security perspective and a force health protection perspective, the Department of Defense (DoD) is working in concert with civilian partners to prepare for both identifying and mitigating this threat. These preparatory efforts cross the spectrum from identification of pathogen, to drug prophylaxis, to vaccine development, to public health prevention and control measures. Using Real-Time PCR (RT-PCR) and a robust information management/information technology (IM/IT) backbone, the Air Force Medical Service (AFMS), partnering with Health and Human Services (HHS) and Department of Homeland Security (DHS), is prepared to fill capability gaps in the existing network by instituting both a short-term and long-term solution that provides worldwide real-time public health and laboratory-based surveillance for pandemic-like illness and emerging infectious disease.

**Problem:** We lack real-time public health surveillance systems for emerging infectious diseases and biothreat pathogens; both laboratory processes and data flows are often days to weeks old resulting in a public health response that is reactive, not proactive.

**Current Process:** DOD influenza surveillance is a nine-day process from sample collection to reporting results. Active surveillance for influenza is mandatory for all DoD services IAW HA Memo 99-008. Under the DoD Global Emerging Infections Surveillance and Response System (GEIS) Influenza Surveillance Program, nasal wash or throat swab specimens collected from six to ten patients meeting the influenza like illness (ILI) case definition at each designated sentinel site are processed in the Air Force Institute of Operational Health (AFIOH) Laboratory, Brooks City-Base. Other DoD laboratories collaborate by collecting specimens from foreign nationals in designated areas. AFIOH reports test results weekly to the sentinel site's laboratory and Public Health offices who in turn reports cases via AFRESS-II within 30 days of notification. AFIOH creates weekly and seasonal reports and geographic maps of laboratory results; ILI graphs are retrievable from Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE).

**Solution:** The purpose of the Silent Guardian II Project is to provide real-time public health surveillance for influenza like illness (specifically pandemic strains such as the H5N1), in the beneficiary population, at a minimum of six DoD sites both CONUS and OCONUS to include a referral laboratory. This approach is scalable to an unlimited number of sites and will allow for the real-time sample analysis, data capture, data analysis, and information reporting for pathogens that cause influenza like illness (ILI) in the human population. This public health surveillance approach will allow decision makers to have decision quality information in real-time thus enabling public health prevention and control strategies to be implemented on the front-end of an epidemic curve. This project, deployable in the late spring of 2006, will leverage the pathogen detection capability from the Epidemic Outbreak Surveillance (EOS) Advanced Concept Technology Demonstration (ACTD), an Infectious Disease Identification System (IDIS), using a Taqman low-density/ multi- well array card (Applied Biosystems, Inc.), along with automated data capture and reporting. This capability offers robust, rapid simultaneous multi-pathogen identification for a subset of pathogens that result in ILI, to include the signatures for pathogens such as Avian flu (H5N1) and Severe Acute Respiratory Syndrome (SARS), in four to six hours vs. the days to weeks currently required. This technology insertion also includes automated data capture (every 5 minutes), analysis and reporting through the Composite Occupational Health and Operational Risk Tracking (COHORT) system. The Silent Guardian II Project expands force health protection and

homeland security by introducing the best available advanced identification and reporting capability for pathogens causing febrile respiratory illness to include Avian flu and SARS.

**Proposed sites:**

Sites selected based on geographic location and laboratory capability to provide the broadest possible global coverage to create a seamless early warning and reporting respiratory disease surveillance network. Suggested sites include:

Tier 1: (1) 121<sup>st</sup> EVAC Hospital, South Korea; (2) Yokosuka Naval Hospital, Japan (3) Tripler Army Medical Center, Hawaii; (4) Incirlik Air Base, Turkey; (5) Landstuhl Regional Medical Center, Germany; (6) David Grant Medical Center, Travis Air Force Base, California; and (7) Air Force Institute for Operational Health (AFIOH) at Brooks City-Base, San Antonio, TX will maintain their role as the AFMS lead for the DoD GEIS Influenza Surveillance Program by providing epidemiological and referral laboratory-based surveillance capability.

Tier 2: Additional sites selected to provide a more robust global prevention, surveillance and response system by connecting to and upgrading DoD GEIS laboratory capability; suggested sentinel sites include: (1) Armed Forces Research Institute of Medical Science (AFRIMS) in Bangkok, Thailand; (2) Naval Health Research Center (NHRC) in San Diego; (3) Naval Medical Research Center Detachment (NMRCD) in Lima, Peru; and (4) Naval Medical Research Unit (NAMRU) in Cairo, Egypt.

**Cost:**

Tier 1: The first six tier 1 sites will cost \$1M/site/first year to include equipment, training, all and consumables required to collect and run a minimum of six clinical samples per day, and ship split samples for referral testing. AFIOH Surveillance Hub pandemic preparation enhancements will cost \$4M for the first year<sup>1</sup> and include the additional tasks of education and training; competency verification; IDIS platform results validation; COHORT implementation; additional consumables (collection kits, shipment supplies); BSL-2 and -3 testing capabilities enhancements to include “gold standard” confirmation methods, molecular analyses (i.e., rapid multi-sample, multi-pathogen screening, strain genetic diversity analysis for antigenic shift and drift, and bioinformatics systems); modernizing enterprise IM/IT capabilities, to include improved Air Force Standard Inpatient Data Record (SIDR) and Standard Ambulatory Data Record (SADR) data access, data query runs/data-mining and storage for enhanced pandemic preparedness capability while COHORT brought on-line; employment of Geographic Information System (GIS) technology for mapping geographical spread of influenza isolates and tracking strain variation to provide spatial and retrospective analysis of influenza activity; and expanded 24/7 subject matter expert reach-forward and -back support. Total: \$10M

Tier 2: Provide additional public health prevention, surveillance and response capability through provision of regional referral laboratory upgrades affording redundancy for backup and surge capacity. First year costs of \$2.5M/site increases global coverage and will include training; competency verification; IDIS platform results validation; COHORT results verification; expanded “gold standard” confirmation testing; upgrading of site-specific molecular analysis capabilities; IM/IT enhancements; GIS capabilities; and 24/7 reach-forward and -back support. Total: \$5M.

**BACKGROUND PAPER**  
**ON**  
**BRAIN ACOUSTIC MONITOR**

**Background:** Traumatic brain injury (TBI) is a major cause of death from trauma world-wide, and is the number one cause of death for injured warfighters who survive to an in-theater hospital level echelon of care. The mainstay of care for these patients is the maintenance of adequate cerebral perfusion pressure (CPP). There is currently no effective, continuous, non-invasive monitor of cerebral perfusion to guide clinical management.

The National Defense Authorization Act (NDAA) for Fiscal Year, 2006, directs research & treatment for the Prevention, Mitigation and Treatment of Blast Injuries. More specifically, Section 243 (c) specifies that DOD will develop medical research on emerging medical technologies for the treatment of blast injuries. Section 243 (d.1) identifies that such studies be initiated to improve clinical evaluation & treatment with emphasis on traumatic brain injury. Section 243 (d.2.A) directs that studies more accurately evaluate TBI and discriminate between TBI & post traumatic stress injury.

The Brain Acoustic Monitor (BAM) will definitively address the targets specified in the NDAA 2006, Section 243.

**Purpose:** BAM fills a void in battlefield brain injury assessment as it relates to far-forward triage, continuous brain monitoring during military transport and in-theater treatment procedures (e.g., damage control surgery) and fit-for-battle assessment. Non-invasive measurement of CPP with the BAM can be done easily in the military theater and can guide the management of head injured patients leading to better outcome (fewer fatalities and less disabilities) after trauma.

**Discussion:**

- FY 06 program:
  - BAM demonstration project is on track to receive \$2.39M through the Warfighter Rapid Acquisition Program (WRAP). (Note: WRAP provides initial funding for the demonstration of promising technologies for accelerated acquisition)
  - Validation will be done at the R Adams Cowley Shock Trauma Center, Baltimore MD with operational testing at Balad AB Iraq
  
- FY 07 request of \$1.232M includes:
  - Support the operational transition of the device
  - Sustainment/maintenance of devices used in FY 06
  - Provide continued evaluation and revisions as required to enhance capabilities
  - Finalize training modules and prepare medical personnel deploying to BAM sites

**TALKING PAPER**  
**ON**  
**ADVANCING THE MILCON PROGRAM**

**REQUIREMENT**

- Additional funding to advance critical MILCON projects and restore failing infrastructure and clinical/operational effectiveness

**BACKGROUND**

- AFMS MILCON requirements through 2028 require more than twice the available annual DHP MILCON funding.
  - Large bow wave of project requirements is growing due to deferring MILCONs -- \$380M in FY08 alone
  - AFMS inventory exceeding 50-year replacement age continues to grow (27% by 2028)
  - Over 50% of clinics operate in old, outdated platforms originally constructed as hospitals-- many without renovation; severely reduces clinical and operational effectiveness/efficiency
- MILCON buying power has eroded: buys 60% less than only a decade ago
  - No significant funding increase coupled with extreme construction inflation in last few years due to labor and material shortages
- Medical BRAC changes offer some relief but only affects a few locations; majority of MTFs still have unfunded requirements for modernization and/or replacement
- Current FY08-13 draft POM provides only approximately \$67M/yr (see attachment 1)
- Six MILCON projects are urgently needed and can be advanced for execution in FY07: \$66M Tinker Clinic Replacement, \$62M Spangdahlem Clinic Replacement, \$10.8M for 4 BEE facilities (see attachments 2-4)

**RECOMMENDATION**

- Increase FY07 DHP MILCON funds by \$138.8M to allow critical AFMS projects to proceed



**FY07 AFMS MILCON PROGRAM**

<b>FY07</b>		
MacDill	Clinic Replacement	87.00

**FY08-13 DRAFT AFMS MILCON PROGRAM**

<b>FY08</b>		
MacDill	Pharmacare Replacement	5.00
Buckley	Satellite Pharmacy	2.11
Spang	Medical Clinic Replacement	23.00
	<b>Total</b>	<b>30.11</b>

<b>FY09</b>		
Tinker	Clinic Replacement	65.65
	<b>Total</b>	<b>65.65</b>

<b>FY10</b>		
Spangdahlem	Dental/Support Replacement	40.62
Lackland	Dental Clinic Replacement	23.00
	<b>Total</b>	<b>63.62</b>

<b>FY11</b>		
Ramstein	Clinic Replacement	66.30
	<b>Total</b>	<b>66.30</b>

<b>FY12</b>		
Peterson	Dental Clinic Replacement	7.10
Wright-Patt	Pharmacy Replacement	3.00
Osan	Hospital Addition/Alteration	11.00
Eglin	BEE Replacement	5.00
Shaw	Clinic Replacement	30.20
Kunsan	BEE Replacement	1.30
Kirtland	Life Skills Replacement	1.50
Dover	BEE Replacement	2.10
Hanscom	Life Skills Replacement	3.50
Seymour-Johnson	BEE Replacement	3.06
	<b>Total</b>	<b>67.76</b>

<b>FY13</b>		
Scott	Clinic Replacement	69.25
	<b>Total</b>	<b>69.25</b>

**TALKING PAPER**  
**ON**  
**TINKER REPLACEMENT CLINIC MILCON**

**REQUIREMENT**

- New clinic is needed at Tinker AFB as soon as possible to replace existing seriously outdated clinic with failing structural system; scope is 176,789 sq ft, total cost is \$66M

**BACKGROUND**

- Recent structural analysis found cracks penetrating entire depth of clinic's structural columns; expert analysis indicates flaws cannot be corrected placing the facility in a dangerous state requiring immediate replacement
  - Risk mitigation project is underway to wrap structural columns as a temporary "band-aid" measure until replacement facility can be constructed
  - Facility at risk for total catastrophic collapse from tornado or earthquake
- Existing clinic was constructed in 1957 as a hospital; it is currently dysfunctional and outdated making it difficult to provide state of the art care to 25,000+ enrollees
  - Old operating rooms and inpatient units have not been renovated for efficient use; pharmacy is undersized; clinics are inefficient; most building systems are at end of their lifespan
- Architect has been hired to design replacement clinic and site has been approved; project can be executed in FY07 using a design-build contractor
  - Project includes creating a joint AF/Navy flight medicine clinic to replace the currently separated functions; also includes replacing in-kind space for the 507<sup>th</sup> AF Medical Reserve Unit
  - Project provides readiness skills sustainment platform for orthopedic surgeons and general surgeons who offer clinic services on base and perform surgeries in local downtown facilities

**RECOMMENDATION**

- Fund replacement clinic as soon as possible; FY07 cost for design-build delivery is \$66M

**TALKING PAPER  
ON**

**SPANGDAHLEM AIR BASE REPLACEMENT CLINIC MILCON**

**REQUIREMENT**

- New clinic to replace outdated hospital at Bitburg Annex and consolidate with clinic functions at Spangdahlem Air Base; scope is 137,000 sq ft; cost is \$62M

**BACKGROUND**

- Existing hospital at Bitburg was constructed in 1952 and is the oldest hospital in the AF inventory
  - Facility systems are failing, frequently causing medical services to shut down: pipes repeatedly burst, HVAC works intermittently, communications lines are unreliable, building envelope is deteriorated/allows water intrusion & pest infestation
  - Bitburg Annex is 12 miles from Spangdahlem clinic; split of medical functions is inefficient and inconvenient without providing an advantage to patients
  - Hospital and DoDDs school prevent closure of Bitburg Air Base.
- Bitburg Annex is a part of Spangdahlem AB. Healthcare provided to approximately 10,500 beneficiaries; Spangdahlem AB is heavy lift back-up runway to Ramstein AB and hosts two F-15 squadrons and an A-10 squadron
- Clinic replacement and consolidation of healthcare will be more efficient than current separated facilities. Beneficiaries will obtain inpatient care from excellent nearby host-nation hospitals
  - Project consolidates primary care, ancillaries, administration, and dental functions into a single building; allows several deficient clinic outbuildings within the flight line blast zone to be vacated
  - Facility was 100% designed in FY03; only minor re-design is required to rescale the clinic and incorporate dental clinic to allow closure of Bitburg

**RECOMMENDATION**

- Fund replacement clinic as soon as possible; FY07 cost is \$62M

**TALKING PAPER  
ON**

**AF BIOENVIRONMENTAL ENGINEERING FACILITY MILCONS**

**REQUIREMENT**

- Four replacement Bioenvironmental Engineering (BEE) facilities are required to support homeland defense and operational missions; total cost \$10.8M

**BACKGROUND**

- Expanding bioenvironmental engineering missions, to include additional Homeland Defense response, coupled with small, deteriorating BEE buildings that do not meet anti-terrorism/force protection requirements necessitate replacements at four bases
  - BEE missions include airfield emergency response and chemical spills/incident response, radiological monitoring, and continuous environmental and occupational health monitoring of base operations
  - BEE deployed missions include supporting teams for nuclear, biological, and chemical mitigation, preventive medicine teams, epidemiology, and establishing/maintaining forward operating base hygiene/industrial safety. BEE personnel are deployed with initial medical elements to ensure full evaluation of hazards.
- Replacement facilities are needed at the following locations:
  - Eglin AFB - Current facility is undersized, WW II era wooden building; replacement cost \$4.5M
  - Kunsan AB - Existing facility is undersized/deteriorating; base is gaining 1,500 Army active duty troops; replacement cost \$1.3M
  - Dover AFB - Existing facility is undersized/does not meet anti-terrorism standards; replacement cost \$2M
  - Seymour-Johnson AFB – Base condemned and demolished BEE facility; function relocated to warehouse as temporary measure; replacement cost \$3M

**RECOMMENDATION**

- Fund four replacement BEE facilities as soon as possible; FY07 total cost is \$10.8M