



Energy Opportunities at Joint Bases

Dr. Get W. Moy, P.E.

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BRAC 2005 Joint Basing Actions

Acquisition, Technology and Logistics

- Direction from BRAC 2005:

“Realign (installation A) by relocating the installation management functions to (installation B)...”

- Estimated one-time costs: \$54.1M
- Estimated annual recurring savings: \$211.9M



BRAC 2005 Joint Bases

Acquisition, Technology and Logistics

**Billet reductions
projected by COBRA**

| | | | |
|----------------------|-----|---|-----------------------|
| Navy Lead | 1. | NS Pearl Harbor / Hickam AFB, HI | (277) |
| | 2. | Navy Base Guam / Andersen AB, GU | (95) |
| | 3. | Anacostia Annex / Bolling AFB, DC | (119) |
| | 4. | NS Norfolk / Ft Story, VA | (21) |
| Army Lead | 5. | Ft Lewis / McChord AFB, WA | (422) |
| | 6. | Ft Myer / Henderson Hall, VA | (13) |
| AF Lead | 7. | Charleston AFB / NWS Charleston, SC | (264) |
| | 8. | McGuire AFB / Ft Dix / NAES Lakehurst, NJ | (89 & 173) |
| | 9. | Andrews AFB / NAF Washington, MD | (18) |
| | 10. | Elmendorf AFB / Ft Richardson, AK | (224) |
| | 11. | Lackland AFB / Randolph AFB / Ft Sam Houston, TX | (109 & 80) |
| | 12. | Langley AFB / Ft Eustis, VA | (217) |



Common Delivery of Installation Support (CDIS)

Acquisition, Technology and Logistics

- BRAC 2005 Commission direction:
 - *“...Moreover, the Department of Defense must provide DoD-wide standards for delivery of services and common definitions for those services before installation management functions are relocated from the losing activities.”*
- Common Output Level Standards (COLS) for Joint Bases under development



CDIS (cont.)

Acquisition, Technology and Logistics

- Common Delivery of Installation Support (CDIS)
 - Common framework, language and toolsets
 - OSD cost visibility for installation support
 - Capability-based programming for Installation Support
 - COLS
- Common Programming Models
 - Facilities Operations Model (FOM)
 - Facilities Sustainment Model (FSM)
 - Facilities Modernization Model (FMM)
 - Installation Services Model (ISM)



HR 109-452 / NDAA 2007

Acquisition, Technology and Logistics

- HR 109-452, the report accompanying the National Defense Authorization Act of 2007 directed the Secretary of Defense to report on the potential use of energy conservation measures and renewable energy systems at joint military bases.
- The report was published in April 2007



Fort Lewis / McChord AFB, WA

Acquisition, Technology and Logistics

- Army Lead
- Fort Lewis ESPC and McChord AFB UESC could cover both installations
- One ECIP at McChord for central steam plant economizer
- Renewable Energy study for joint base
- Possible central dispatch for vehicles. Work with AAFES for alt fuel infrastructure
- Could hire and share a REM



Fort Myer / Henderson Hall, VA

Acquisition, Technology and Logistics

- Army Lead
- Possibly expand Fort Myer ESPC to cover both
- No Programmed projects
- No Renewable Energy Opportunities identified
- Possible central dispatch for vehicles.
Work with AAFES for alt fuel infrastructure
- Could hire and share a REM



Pearl Harbor / Hickam AFB, HI

Acquisition, Technology and Logistics

- Navy Lead
- ESPC exist at both
- Ford Island Photovoltaic could expand. Hickam has several programmed projects
- Possibility to expand solar collection and investigate wind and ocean energy
- Hickam has ongoing hydrogen and PHEV demo projects that could expand. DESC trying to resolve local quality issues for bio-diesel
- Could use Pearl Harbor REM at Hickam



Navy Base / Andersen AFB, Guam

Acquisition, Technology and Logistics

- Navy Lead
- Ongoing ESPC at Andersen, initial audit occurring at Navy Base
- Navy Base has a PV ECIP for 2008.
- Wind opportunities are being studied. Solar opportunities exist
- No alt fuel infrastructure exist. PHEV are viable considering the islands small size
- Andersen has a REM. Navy Base is acquiring a REM.



Anacostia / Bolling AFB, DC

Acquisition, Technology and Logistics

- Navy Lead
- Ongoing ESPC at Anacostia. Bolling pursuing an UESC.
- No programmed projects.
- Opportunities exist for the use of water treatment plant gas and solar technologies
- Anacostia has CNG while Bolling has E85 and B-20. Potential exists for a shared hydrogen station.
- Neither base has a REM, which could be shared



NAB Little Creek / Fort Story, VA

Acquisition, Technology and Logistics

- Navy Lead
- NAB recently completed an ESPC with potential for more
- NAB has PV and GSHP projects and Fort Story has a UMCS project programmed
- Potential exists for more GSHP and some solar and wind energy
- The Navy Exchange offers alt fuel. Fort Story has no alt fuel vehicles
- NAB is trying to hire a REM which might be shared



Charleston AFB / NWS Charleston, SC

Acquisition, Technology and Logistics

- Air Force Lead
- NWS ESPC can be expanded to cover Charleston AFB
- No Programmed projects
- Opportunities for the use of GSHP exists
- Both bases have alt fuel vehicles, but no E85 available
- Opportunities exists for a joint review of utility rates and water reclamation at NWS.



McGuire AFB / Fort Dix / NAES Lakehurst, NJ

Acquisition, Technology and Logistics

- Air Force Lead
- Ongoing ESPC survey at McGuire and UESC at NAES could be expanded.
- No Programmed Projects
- Geothermal, PV, and biomass are being investigated across the bases
- No E85 infrastructure available. Possibility exists for a creating a closer road link for NAES and Fort Dix
- McGuire is hiring a REM, which could be shared. Bulk commodity purchases and resource sharing could provide savings.



Andrews AFB / NAF Washington, MD

Acquisition, Technology and Logistics

- Air Force Lead
- Both installations are currently using a UESC
- There are no projects programmed
- Both bases are considering solar projects
- Andrews has alt fuel available that might be used by NAF in the future
- Andrews is scheduled for a utility rate review



Elmendorf AFB / Fort Richardson, AK

Acquisition, Technology and Logistics

- Air Force Lead
- Both bases have ongoing ESPC
- Elmendorf has an active EMCS project
- Elmendorf has GSHP and Fort Richardson has wind energy opportunities
- Both bases have alt fuel vehicles, but no infrastructure
- Elmendorf recently hired a REM which could expand onto Fort Richardson



Lackland AFB / Randolph AFB / Fort Sam Houston, TX

Acquisition, Technology and Logistics

- Air Force Lead
- All 3 installations use an ESPC or UESC. A joint ESPC is under consideration.
- Fort Sam Houston has a small PV array programmed
- Small PV arrays show promise. Wind power can be purchased at a premium.
- Both AFB have alt fuel infrastructure, which could be used by Fort Sam Houston
- Savings could be realized by combining REMs and EMCS maintenance contracts. Integration of three EMCS could prove efficient. Deregulation could lead to aggregated purchase of commodities.



Langley AFB / Fort Eustis, VA

Acquisition, Technology and Logistics

- Air Force Lead
- Fort Eustis has an ESPC. Langley doesn't.
- Fort Eustis has a UMCS expansion programmed
- Neither base has identified significant renewable energy opportunities
- Neither base has alt fuel infrastructure. NASA which is next to Langley, does. Fort Eustis is negotiating with AAFES for infrastructure.
- A REM could be hired and shared by the bases.



Summary of opportunities

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- ESPC tend to become more viable with more infrastructure to include
- Increased use of existing alt fuel infrastructure and incentive to construct more
- Sharing of existing REM and incentive to acquire REM where none exist
- Identification and development of additional renewable energy opportunities



USN – USAF Table Top Exercises

Acquisition, Technology and Logistics

- **Primary purpose:** Evaluate responsiveness of Joint Base Construct options to meet mission requirements and provide recommendations to CNO / CSAF
- Each exercise location will review 12-17 functions
 - Anacostia-Bolling (April and June) - completed
 - Charleston (July) - completed
 - Hawaii (July/August)
 - Guam (August)



Final Thoughts

Acquisition, Technology and Logistics

- COLS/CDIS
- Table Top Exercises
- REM's / Intellectual matter
- ESPC's
- Economies of scale