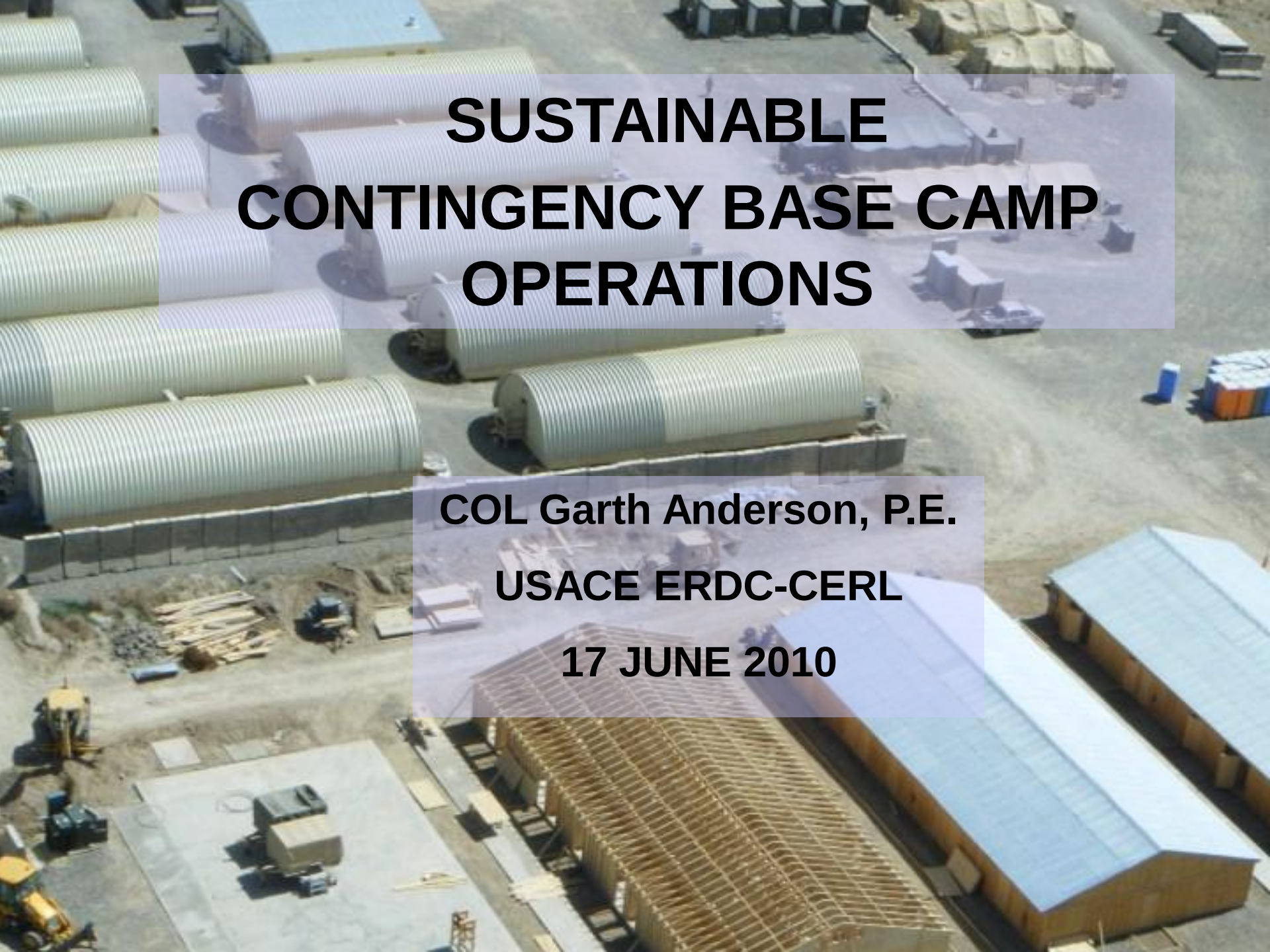


An aerial photograph of a military base camp under construction in a desert environment. Several large, white, cylindrical water storage tanks are visible in the upper left. In the foreground, there are large rectangular concrete foundations and the skeletal steel framework of a large building. Various construction materials and equipment are scattered around the site.

SUSTAINABLE CONTINGENCY BASE CAMP OPERATIONS

COL Garth Anderson, P.E.

USACE ERDC-CERL

17 JUNE 2010

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OUTLINE

DEFINITION

BASE CAMP DEFINITION & FUNCTIONS

HISTORY

ORGANIZATION AND STAFFING

METHODS AND STANDARDS



BASE CAMP DEFINITION

“A *base camp* is an evolving military facility that supports the military operations of a deployed unit and provides the necessary support and services for sustained operations. Base camps consist of intermediate staging bases and forward operations bases and support the tenants and equipment. While base camps are not permanent bases or installations, they develop many of the same functions and facilities the longer they exist. A base or base camp can contain one or more units from one or more Services. It has a defined perimeter and established access controls and takes advantage of natural and man-made features.”

TRADOC Base Camp Functional Area Analysis



BASE CAMP CORE FUNCTIONS

- **Command & control**
- **Life support**
- **Force protection**
- **Power projection**
- **Fires support**
- **Communications support**
- **RSOI support**
- **Maintenance & logistics support**
- **Transportation support**
- **Training support**
- **MWR**
- **Emergency Services**



BASE CAMP SIZES

FOR PLANNING PURPOSES

Brigade: 6,000 soldiers

Battalion: 1,000 soldiers

Company: 150 soldiers

Does not include contractor population.

- 60% military/40% contractor at BDE(-)
- 50/50 at BDE and larger
- 40/60 at VBC, Iraq



WHY SUSTAINABLE BASE CAMPS?

Reduce resource consumption

- Fewer vehicles and soldiers on the road
- Lower cost
- Reduce basecamp footprint
- More resources = larger logistics tail that also must be supported
- More supportable in austere locations

Human health & environment

- Enhance soldier quality of life
- The right thing to do!



IMPROVE SUSTAINABILITY

HOLISTIC, INTEGRATED APPROACH

STAFFING AND MANAGEMENT

- **Base camp staff manning and organization**
- **Training**

METHODS

- **Doctrine, policies and practices**
- **Master planning**
- **Construction techniques and standards**
- **Quality of life standards**

TECHNOLOGY: **Efficient power generation,
distribution, usage**



BASE CAMP OPERATIONS HISTORY

VIETNAM

- Centralized planning and construction oversight of base camps
- 27 major camps built – includes ports and airfields
- Lack of facility engineers in force structure - identified need to develop of broader base of capability



BASE CAMP OPERATIONS HISTORY

1975-1991

- Mobile mechanized warfare doctrine did not address base camps
- Engineers focused on “Sapper” skills



BASE CAMP OPERATIONS HISTORY



BALKANS

- Non-linear operations, base camps regained relevance
- Developed standards – REDBOOK
- Concept of Basecamp Mayor
- Thorough master planning



BASE CAMP OPERATIONS HISTORY

AFGHANISTAN

- Basecamps established around major airfields
- Others established as operational situation changed
- Camps evolved according to SANDBOOK based master plans
- Staffed by ad-hoc “garrison commands” and Facility Engineer Teams
- Lack of skilled local labor



BASE CAMP OPERATIONS HISTORY

IRAQ



- Camps established along routes and at major existing facilities
- Mayor Cell concept re-emerged – staffed by ad-hoc or provisional units
- Little formal training
- Facility engineer units often not available
- AF and Navy increased role
- Contractor numbers grew



BASE CAMP MANNING AND ORGANIZATION



BASE CAMP STAFFING

Typical base camp staffing functional elements

- Base camp commander typically senior mission unit commander
- Garrison commander
- Mayor cells – may have multiple depending on base camp size
- Directorate of Information Management (DOIM)



BASE CAMP STAFFING: MAYOR CELL

- **Not a doctrinal organization. Originated in Balkan operations, has evolved through reality and experience in OEF/OIF**
- **Approximately 15 PAX**
- **Typically headed by LTC and CSM**
- **Higher rank commensurate with responsibility. Able to get things done, enforce standards.**



MAYOR CELL FUNCTIONS

- Department of Public Works (DPW)
- Directorate of Logistics (DOL)
- Contract management
- Force protection
- Terrain management
- MWR
- Billeting
- Tenant activity (landlord)
- Emergency services
- Life support/Quality of life



DPW FUNCTIONS

- Master planning
- Construction management
- Facility management
- Water distribution
- Waste water disposal
- Power distribution
- Solid waste
- Environmental to include HAZWASTE



BASE CAMP STAFFING

Dedicated Unit

- Typically assigned to brigade size and larger base camps
- Area Support Group (Deactivating)
- Regional Support Group
- “Provisional” CSS units



BASE CAMP STAFFING

Ad-Hoc

- Typical for BDE (-) size and smaller, or temporary camps
- Staff may come from mission unit or provisional garrison command
- Augmentation
 - Facility Engineer Team/Det (FET/FED)
 - Forward Engineer Support Team (FEST)
 - Other military services
 - Contractors
 - Base camp support battalion
- Flexibility for surge, location, contract restrictions



BASE CAMP MANAGEMENT & SUPPORT ORGANIZATIONS

- **Installation Management Command**
- **Army Materiel Command: LOGCAP**
- **Defense Contract Management Agency**
- **US Army Corps of Engineers**
 - **Forward Engineer Support Team**
 - **Environmental Support Teams**
 - **Military Construction (MILCON)**
 - **Tele-engineering reachback**

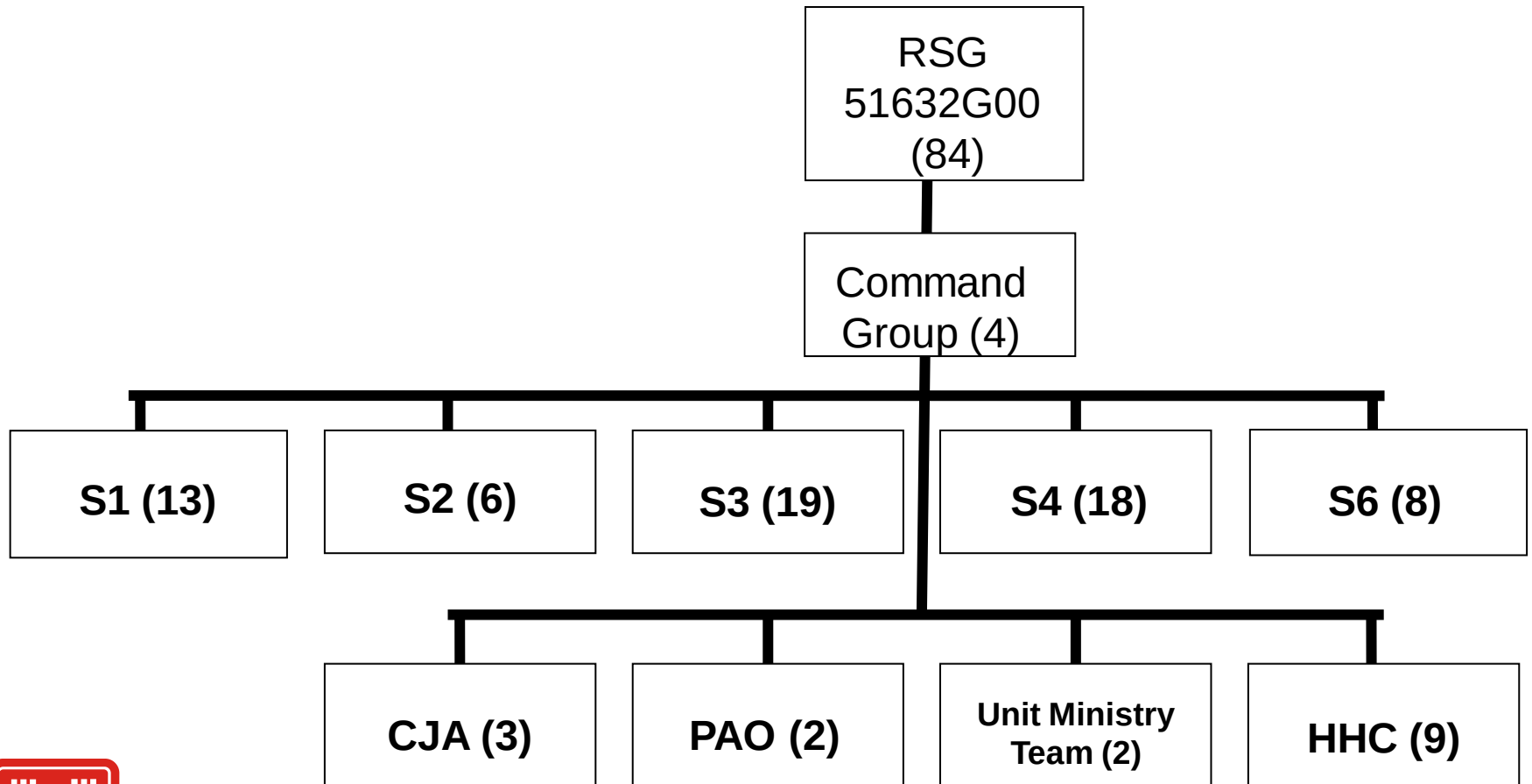


REGIONAL SUPPORT GROUP

- Reserve Component unit, USAR and ARNG
- Currently undergoing MTOE change to include contingency support ops
- Contingency base camp management to become part of METL
- Allocated for camps of greater than 6,000 soldiers
- O6 level command and staff
- Requires functional augmentation
- Mayor cell staffing capability comes from attached unit

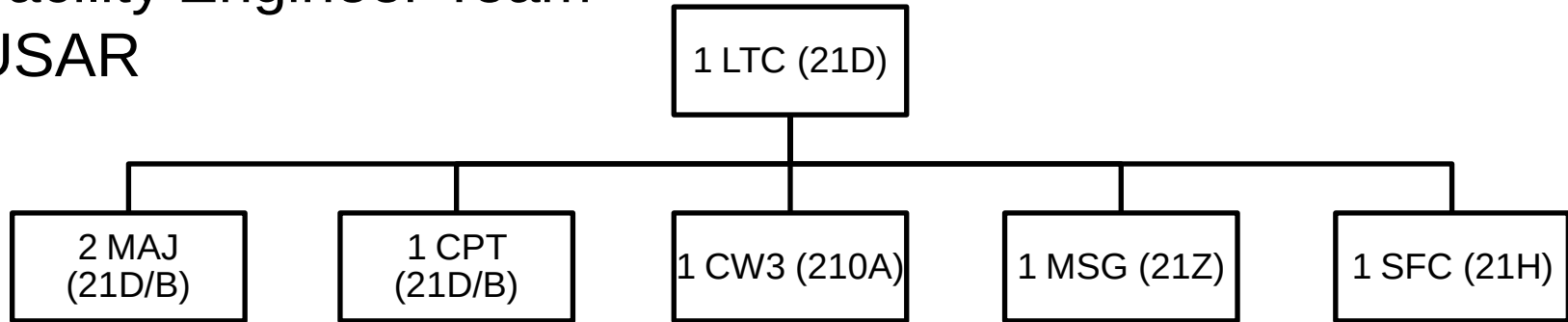


RSG STRUCTURE (Draft, Proposed)

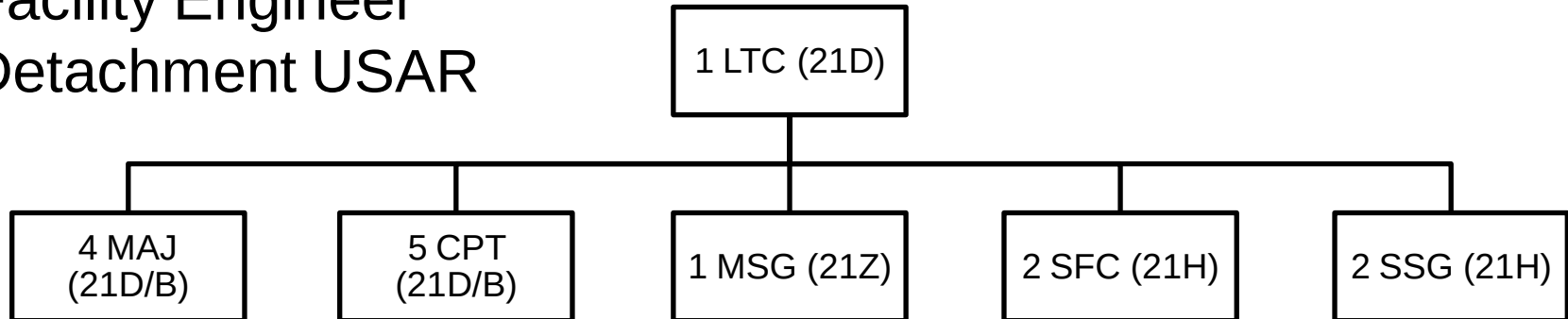


FET/FED

Facility Engineer Team USAR



Facility Engineer Detachment USAR



FM 3-90.6
JUL 09



BCT BASE CAMP SUPPORT CAPABILITIES

- **Command & control**
- **Brigade Special Troops Battalion (BSTB) – multiple capabilities**
- **Infrastructure survey**
- **Minor construction and repair**
- **Force protection**
- **Organic power generation (TACGENs)**
- **Basic life support and sustainment**
- **Basic environmental**



BASE CAMP FUNCTIONS OUTSIDE OF BCT CAPABILITY

- **DPW**
 - Master planning
 - Construction management
 - Facility management
 - Water distribution
 - Waste water disposal
 - Power distribution
 - Solid waste
- **Contract management**
- **Logistics**
 - Water production
 - Laundry
 - Billeting for contractors



SMALLER BASE CAMPS

- **BDE (-), BN, CO sized camps**
- **Similar functional requirements, scaled down**
- **Not large enough to have RSG assigned**
- **May have to rely on organic assets and support from higher**
- **Operation type, amount of existing infrastructure and duration dictate levels of sustainment support**



CONTRACTOR SUPPORT

- Replaces soldier functions
- More services = more resources
- Many elements of contractor support are indispensable to mission
 - Base camp maintenance
 - Construction
 - DFAC
 - Power generation
 - Other services
- Multiple contracts serve a single base
- Base contractor population
 - 60% military/40% contractor at BDE(-)
 - 50/50 at BDE and larger
 - 40/60 at VBC, Iraq



TRAINING



- **Identify and designate base camp support staffs prior to deployment**
 - **Fill positions**
 - **Mirror in-country unit if possible**
 - **Identify functional augmentation**
- **Pre-deployment training**
 - **Battle Command Staff Training**
 - **FOB operations**
 - **Master planning**
 - **Technical training as required**

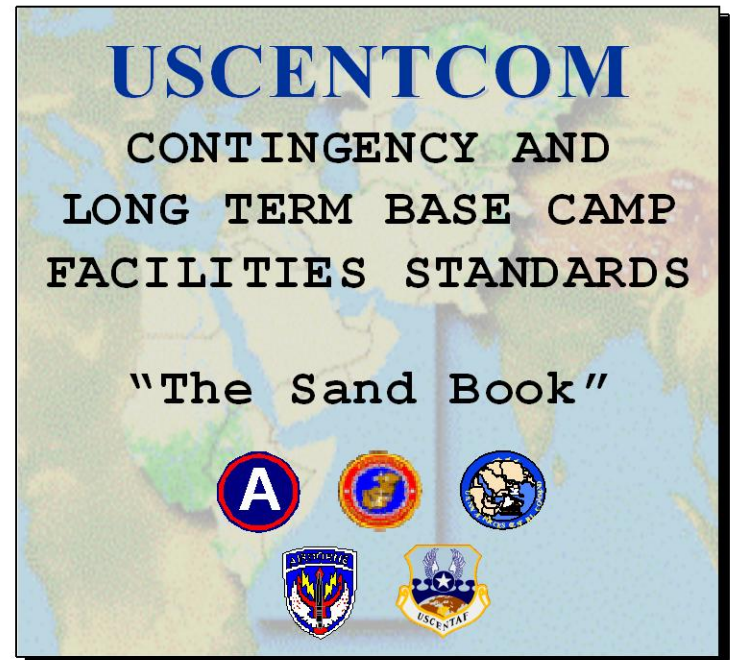


METHODS: PLANNING, DOCTRINE AND STANDARDS



BASE CAMP OPERATIONS DOCTRINE

- No specific, established Army doctrine on planning and operation of base camps
- TRADOC Pam 525-7-7, Concept Capability Plan for Army Base Camps, DEC 09
- SANDBOOK/REDBOOK
- TCMS
- TM 5-300 Series, Army Facilities Components System (1990)
- FM 31-82 Base Development (1972)
- Doctrine in development
 - Base Camp Functional Needs Assessment (under review)
 - Base Camp Functional Area Analysis (Final Draft NOV 09)
 - Base Camp Proponency
 - Basing Strategy Proponency



UNITED STATES CENTRAL COMMAND
MacDill AFB, FL 33621

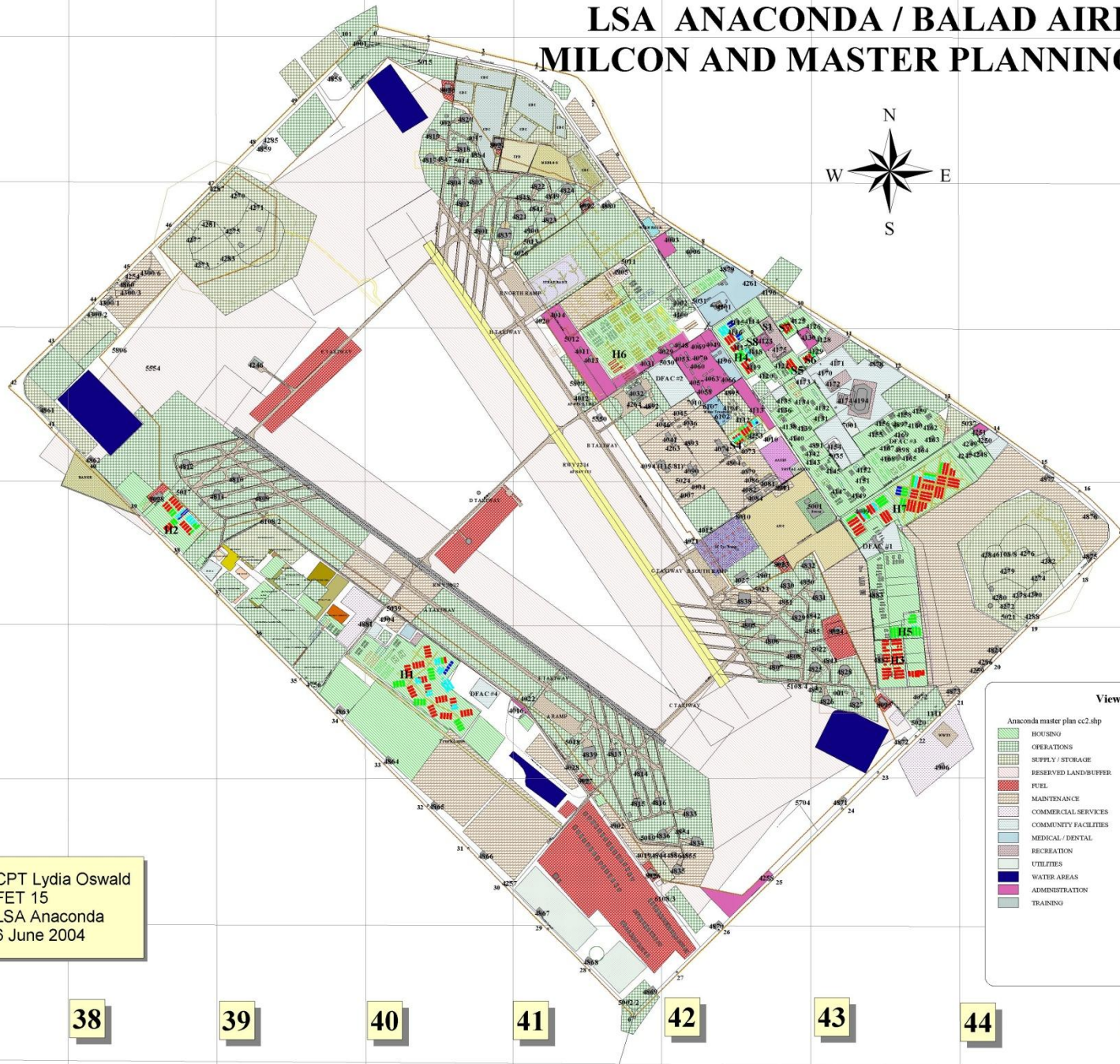
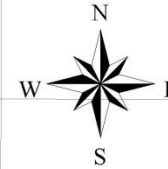
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MASTER PLANNING

- **Develop master plan as early as possible**
 - **More feasible on larger, long term camps**
 - **Plan for sustainability in processes and components**
 - **Implement permanent systems as early as practical**
- **Military lacks trained master planners**
 - **Mayor Cells/DPW should receive training during mobilization**
 - **Standard, basic contingency master planning process**



LSA ANACONDA / BALAD AIRFIELD MILCON AND MASTER PLANNING AREAS



CPT Lydia Oswald
FET 15
LSA Anaconda
6 June 2004

View2

- HOUSING - OPERATIONS - SUPPLY / STORAGE - RESERVED LAND/BUFFER - FUEL - MAINTENANCE - COMMERCIAL SERVICES - COMMUNITY FACILITIES - MEDICAL / DENTAL - RECREATION - UTILITIES - WATER AREAS - ADMINISTRATION - TRAINING	- Milcon shp - A-Wing - AAFES - AF NAV SYS - AF OPS & FIRE - AF Tac Ramp - AMC - CDC - FUEL - Hanger - Hospital - MEDLOG - POSTAL ANNEX - Power - RANGE - STRAT RAMP - TPD - WASH RACK - WWTP - Water Treatment
---	--

CONTINUITY OF OPERATIONS



- AC unit typically serves 1 year BOG
- RC serves approximately 9 months
- Other services may serve 3-9 months
- Transfer of Authority (TOA) between base camp support units is critical



CONTINUITY OF OPERATIONS

- **Transfer of policies**
- **Contract management handoff**
- **Transfer of base master plan**
- **Familiarization of base camp for incoming unit**



CONSTRUCTION STANDARDS

- **SANDBOOK/REDBOOK or other theater-specific construction standards**
- **Theater directives on permanence?**
 - **Long-term, permanent solution may be more sustainable**
- **Look for local construction techniques that can meet U.S. functional requirements**
 - **Local materials – no shipping**
 - **Less training of local labor – fewer contractors to sustain**
 - **May be more energy efficient**
 - **More suitable for turn over at end of mission**





QUALITY OF LIFE

- Time to assess appropriate levels of quality of life
- Does every base need a Baskin Robbins?
- Does every soldier need a personal plasma TV and microwave?
- Are work and living spaces “over air-conditioned”?
- Wean us from bottled water when bulk is available!



Summary

- **Sustainable base camps start by being properly staffed**
 - **Trained**
 - **All functions filled**
- **Base camps must be planned with sustainability in mind**
- **Doctrine and practices should incorporate sustainability as a combat multiplier**
- **Current standards of construction and quality of life should be challenged**



QUESTIONS



CONTACT INFORMATION

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