Overview

- What is GeoReach for the Air Force
- What We’ve Accomplished
- Equipment/Support
- Capabilities
- Training
- Way Ahead
CSAF tasked Air Staff to develop capabilities-based CONOPS making *warfighting effects/capabilities the driver for all we do*. Establishes the foundation for transforming to a capabilities-based Expeditionary Air and Space Force.
GeoReach Basics
Global Mobility CONOPS Linked

- Global Mobility CONOPS calls for capability to:
  - Provide assets around the globe anytime, anywhere
  - Provide **tailored capabilities to stand-up and sustain** combat operations at **prepared and austere locations**
  - **Capability to rapidly assess an airbase**
  - Perform pre action assessments
  - Plan base layout

"Collect/update data on runway and base infrastructure from airfields, remote and en-route to provide runway and basing capability and capacity, at frequent intervals prior to crisis development. Perform pre-action assessment. Maintain Worldwide awareness of airfield capabilities to support mobility operations" Para 5.1.1.2.1, GM CONOPS
**GeoReach Basics**

**COMACC Focus Area Linked**

**Transformation:** Embrace new technology, operational concepts and organizational structures to improve our warfighting capabilities.

**AEF:** Develop fully capable AEFs with tailorable combat/expeditionary combat support capability.

- GeoReach enhances the way in which expeditionary basing decisions are made using an advanced look at mission requirements.
- GeoReach enables tailoring of AEF forces to meet expeditionary combat support.
- GeoReach enhances situational awareness for planners and senior leadership.
- GeoReach used to tailor Airborne RED HORSE forces to mission during OIF.

**Putting decision quality data in the hands of planners & commanders**
GeoReach Basics
COMACC Focus Area Linked

Transformation: Embrace new technology, operational concepts and organizational structures to improve our warfighting capabilities

- GeoReach is transforming the way in which expeditionary basing decisions are made
- Imagery library enabled CFACC planners to develop OIF basing plans (aircraft and facility / personnel beddown) without putting Airmen in harms way (risk avoidance)
GeoReach Basics

COMACC Focus Area Linked

**AEF:** Develop fully capable AEFs with tailorable combat/expeditionary combat support capability

- GeoReach enables tailoring of AEF forces to meet expeditionary combat support requirements by providing an advanced look at mission requirements
- GeoReach used to tailor Airborne RED HORSE forces to mission during OIF
GeoReach Basics
COMACC Focus Area Linked

C2: Aggressively develop full command and control of air and space power

- GeoReach enhances C2 by enabling decision support of crisis response
- GeoReach enhances situational awareness for planners and senior leadership
**Info Ops:** Merge air, space, intelligence and information operations into a seamless capability

- GeoReach provides the integrated framework for the storage and access of expeditionary site support planning data
EXPEDITIONARY SITE MAPPING (ESM) CONOPS

ESM enables Global Mobility CONOPS Base Opening capability
GeoReach
Expeditionary Capabilities - Worldwide Coverage

• Over 44,000 airfields worldwide can lead to massive undertaking to find suitable beddown locations
• GeoReach provides searchable database easing selection process
  • Old way…manually review publications and reports
  • New way…enter criteria into database search engine
• OIF impact
  • 60+ airfields identified in theater narrowed to 5 suitable in 2 days!

Fuses data from National and Commercial Sources for any chosen site
GeoReach
Expeditionary Capabilities – Beddown Planning

• Enables planning decisions to be made “without putting boots on the ground”

• Contingency Aircraft Parking Planner
  • Supports USAF, Army, Navy and NATO aircraft
  • Modeling for alternative Maximum On Ground scenarios
  • Optimizes existing/future ramp space

• Base Engineering Survey Toolkit
  • Permits USAF, Army and Joint Beddown scenarios
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Southwest Asia Air Bases – Sep 01

- **Ali Al Salem, KU**
- **Al Jaber, KU**
- **PSAB, KSA**
- **Al Dhafra, UAE**
- **Shaikh Isa, BAH**
- **Al Udeid, QA**
- **Seeb, OM**
- **Muirairah, OM**
- **Diego Garcia, BIOT**
GeoReach Support in OIF

Deployment Decision Data

- Provided airbase securing forces (Contingency Response Groups) with potential seizure site imagery and related feature data
- Provided airbase recovery forces (Airborne RED HORSE) with airfield support and obstruction data
- Allowed deploying assets to be prioritized maximizing use of limited airlift assets

Enables AEF’s “Open the Airbase” Force Module
GeoReach Support in OIF
Information for Deploying Forces

- Web based data source for 250+ forward locations
- Pavements, facility, and utility support data
- Links to local threat intel

Postured deploying units to hit the ground running
GeoReach Support in OIF
Assessment for Strategic Decisions

- Checkmate tasked ACC to provide engineering assessment of potential forward staging sites inside Iraq
  - Evaluated and ranked 60+ sites
  - Forwarded top 5 recommendations...2 of 5 have US forces there today
  - Tasking took 2 people, 48 hours without boots on the ground

“Outstanding support, you keep hitting them over the fence”

-- Checkmate staff

Providing decision quality data to the CFACC
GeoReach OIF Support
Force Beddown Planning

• Produced beddown plans for 4 sites in Iraq...in use by USAF forces today!

• Notional aircraft parking plans using Contingency Aircraft Parking Planner

• Deployed unit feedback:
  
  • “Amazing detail without having put anyone in harm’s way”

  • “Outstanding 75% solution, a critical time-saver for my troops”

Enables AEF’s “Establish the Airbase” Force Module
Overview

• What is GeoReach for the Air Force
• What We’ve Accomplished
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Equipment/Support

- Dedicated GeoReach Websites – NIPRNET/SIPRNET
  - ArcIMS Map Services – Infrastructure, Force Protection, Safety

- GeoReach support for AMWC Eagle Flag Exercise

- Providing Interactive Force Protection Map Services for ACC/IN, CENTAF/IN and 820th Security Forces Group

- Providing GeoReach CIPs for CENTAF/SEW Safety Manager to develop Explosive Safety Plans

- Providing GPS data support and map services to NGA for Global Hawk operations
Equipment/Support

- Fielding SwiftLink Deployable Comm Node Reachback with access to NIPRNET and SIPRNET

- CENTAF funded GPS and GIS equipment for 8 bases in AOR

- Dedicated CENTAF GIO for Expeditionary GeoBase Support to SWA bases—GIS, GPS, and CAD

- Purchasing 120 Commercial Images from prioritized CENTAF Expeditionary Site Priority List

- ACC/CENTAF GIO support for AF deployed units
Overview

• What is GeoReach for the Air Force
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New Capabilities

• Capability to Generate contours for any location in CENTCOM AOR without boots on the ground

• Exploiting the Air Force Geospatial Product Library

• Linking GeoReach Map Services to 480th Intelligence Wing - Force Protection Mapping

• Arc Catalog Data Tracker and Web Enabled Data Inventory Tool

• Digital Globe – QuickBird Satellite Collection Tool
New Capabilities – Cont.

- 3D Analysis and Feature Extraction from Stereo Pair Imagery
- 2D and 3D Imagizer CDs for deployable situational awareness
- AutoCAD Map Auto Populate SDSFIE Layers Tool
- Integrated GeoReach and NGA ArcSDE/Oracle database
- Integrated Army GIS/GPS Data to enhance CIP
### Sites with Imagery Older Than 6-FEB-2004

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Web-Enabled Data Inventory

Welcome to the GeoReach Data Inventory

Review Existing Sites
Find Reports
Find Airfield Coordinates

ACC GeoReach Imagery Status Report (less than 1 year)

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<th>Image Type</th>
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ACC GeoReach Vector Status Report

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AutoCAD Map – SDSFIE Tool
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Training

• Provide Funding for GIS training for all ACC Prime BEEF units – EAs and Offutt EAs

• Fund GIS/GPS equipment and training for RED HORSE

• Fund hardware and software for Advanced GIS Supplemental Course at Ft Leonard Wood

• Provide funding for training and equipment to ACC Silver Flag

• Fund AFECEA GPS and GIS “just in time” training for ACC deploying units
Training – Cont.

• Continue to provide training and resources to CE trainers at Air Mobility Warfare Center

• Over the phone training with Map Services, Data Searches, and Web Links

• Train EOD on GPS data collection and Web Tools

• Train for Beddown Planning Procedures using GIS Tools

• Train on SwiftLink – Deployable Communication Devices for Reachback from field to HQ ACC and Bases (Once accredited)
Overview

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GeoReach Employment
The Way Ahead

- Train/Equip ACC Engineer units with GPS/GIS
- Expanding availability of SOUTHCOM forward locations
- Develop Operational and Tactical Guidance
- Maturing use of Expeditionary GeoBase
  - Provides base-specific common integrated data picture
Back Up