

Headquarters U.S. Air Force

Integrity - Service - Excellence

Montgomery IT Summit Air Force Civil Engineer NexGen IT Briefing

**Year of the Air Force
Family**



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Chief Information Officer
Office of the Civil Engineer
Headquarters, U.S. Air Force**

May 19, 2010



- Transformation Overview
 - U.S. Air Force Mission
 - Transformation Approach
 - Continuous Improvement
- NexGen IT
 - Information Technology Branch
 - Implementation Approach
 - Mission-Focused Capabilities
- Lessons Learned





Air Force Mission

The mission of the United States Air Force is to fly and fight in Air, Space, and Cyberspace



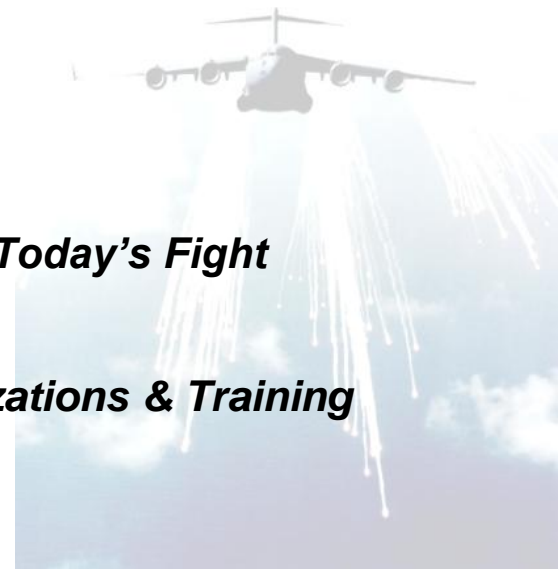
“At the headquarters, **our responsibility is to optimize the effectiveness of the limited resources available**, across all Air Force missions. This includes determining how to **modernize and recapitalize an aging inventory** - one of the Air Force's most critical challenges.”

~ Michael B. Donley, Secretary of the Air Force



AF Leadership Priorities

- ***Continue to Strengthen the Nuclear Enterprise***
- ***Partner with the Joint and Coalition Team to Win Today's Fight***
- ***Develop and Care for Airmen and their Families***
- ***Modernize our Air and Space Inventories, Organizations & Training***
- ***Recapture Acquisition Excellence***



“Sustain risk in infrastructure and facilities...”



Air Force Installations: 3-D Weapons Systems

Weapon System



Air Force mission platform

Weapon System



Navy mission platform

- 166 AF Bases worldwide
- Installations integral to all major mission systems / operations:
 - **Global Vigilance**
 - Nuclear Deterrence Ops*
 - Air Superiority*
 - **Global Reach**
 - Space Superiority*
 - Cyberspace Superiority*
 - Global Precision Attack*
 - Rapid Global Mobility*
 - **Global Power**
 - Special Operations*
 - Global Integrated ISR*
 - Command and Control*
 - Personnel Recovery*
 - Building Partnerships*
 - Agile Combat Support*

Installations like carriers are inseparable from the mission



Physical Plant Profile



85,100 Homes



10M Acres of Land



**200M Sq Yds of
Airfield Pavements**



700M Sq Ft of Facilities

Just Numbers?

***\$243B Plant
Replacement Value***



\$14B Annual Budget



65,000 Dorm Rooms



Air Force Civil Engineering Transformation Approach

- **A7C transformation began in 2006 with an industry “Corps of Discovery”**
 - Manage real property from a portfolio perspective
 - Drive business with Key Performance Indicators
 - Standardize business processes
 - Use automation and IT to reduce costs
 - Leverage AF size through:
 - “Centers of expertise”
 - “Strategic sourcing”





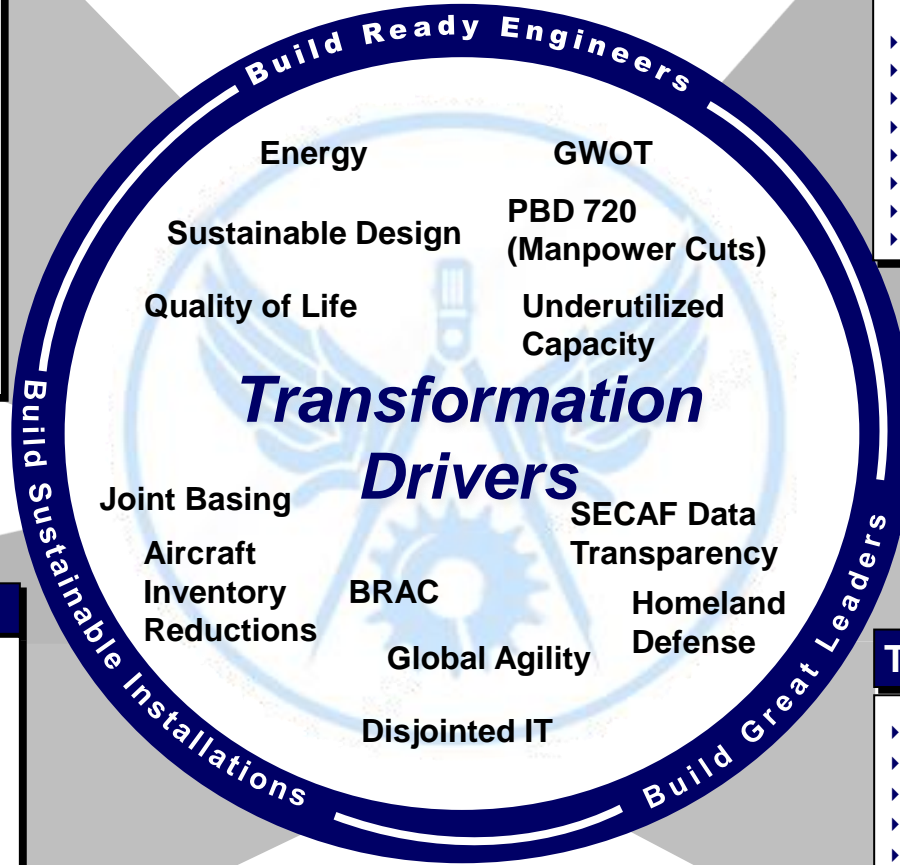
CE Transformation: The Big Picture

People

- ▶ Career Mapping
- ▶ Mentoring / High Tech – High Touch
- ▶ Training
- ▶ Recruiting
- ▶ Leadership Development / Retention
- ▶ Strategic Communication
- ▶ Warrior Resiliency Program
- ▶ Develop Change Leaders Network
- ▶ Year of the AF Family
- ▶ Blue Suit Review
- ▶ Proud Heritage to a Promising Future
- ▶ Revise combat support doctrine
- ▶ Incorporate AF joint billets
- ▶ PRIME BEEF Group Concept

Processes

- ▶ Institutionalize Continuous Process Improvement
- ▶ Conduct Program Group Workshops
- ▶ Revise CE Governance
- ▶ Playbooks
- ▶ Asset Management
- ▶ On going Corps of Discovery
- ▶ CE Strategic Plan 2009-2013
- ▶ Comprehensive Change Management
- ▶ Stand up Commodities Council



Infrastructure

- ▶ AMPs / A-File / S-File
- ▶ Asset Management
- ▶ Energy Solutions...fueling the mission
- ▶ Optimize Space Use
- ▶ Water Conservation
- ▶ Energy Strategic Plan
- ▶ Housing Privatization
- ▶ 20/20 by 2020 / "Shrink from within"
- ▶ Enhanced Use Leasing
- ▶ Privatize utilities where it makes sense

Technology

- ▶ Acquire and configure NexGen IT
- ▶ Stood up IT PMO
- ▶ Launched CE Portal
- ▶ Manage Legacy Sundown
- ▶ Institute Portfolio Management
- ▶ Enable Processes through IT
- ▶ Installation Geospatial Information



Transformation Priorities

- Support the Air Force mission
- Respond to external pressures (e.g., PBD 720, BRAC, etc.)
- Reduce costs and right-size our physical infrastructure
- Empower personnel to with mission-focused IT capabilities and resources
- Establish standard, transparent business practices across CE
- Optimize warfighter support through smart business practices
- Maximize the value of our assets



Maj Gen Timothy A. Byers
The Air Force Civil Engineer

“We have built the foundation for an incredibly efficient and strong Civil Engineering organization. In response to external pressures of a changing Air Force, we developed a new way of doing business, created using the best practices of years of engineering experience.”

“Build to Last ... Lead the Change”



NexGen IT Priorities

- Align IT investments with strategy
- Centralize IT procurement
- Support portfolio management
- Standardize business processes
- Improve communication, reporting, knowledge mgt and decision-making
- Identify and mitigate risks
- Ensure compliant IT solutions



NexGen IT is a critical enabler of CE Transformation initiatives



■ Nine Program Groups

- Based on core CE activities
- Tactical oversight
- Members from across CE

■ Benefits

- Continuous process improvement
- Single owner for continuous process improvement
- Identification of data requirements and gaps
- Decommissioning of duplicative IT systems

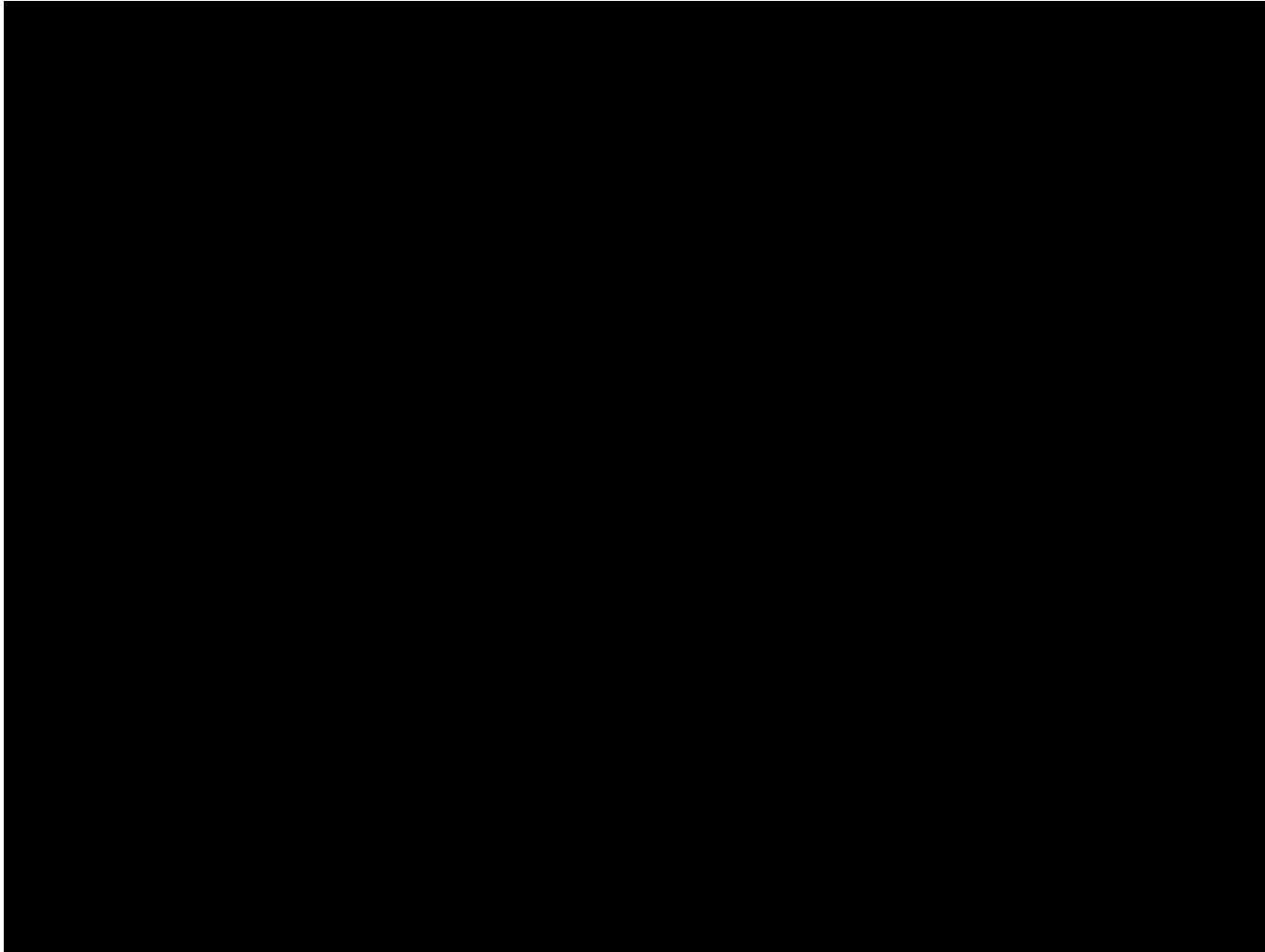


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 - **Information Technology Branch**
 - **Implementation Approach**
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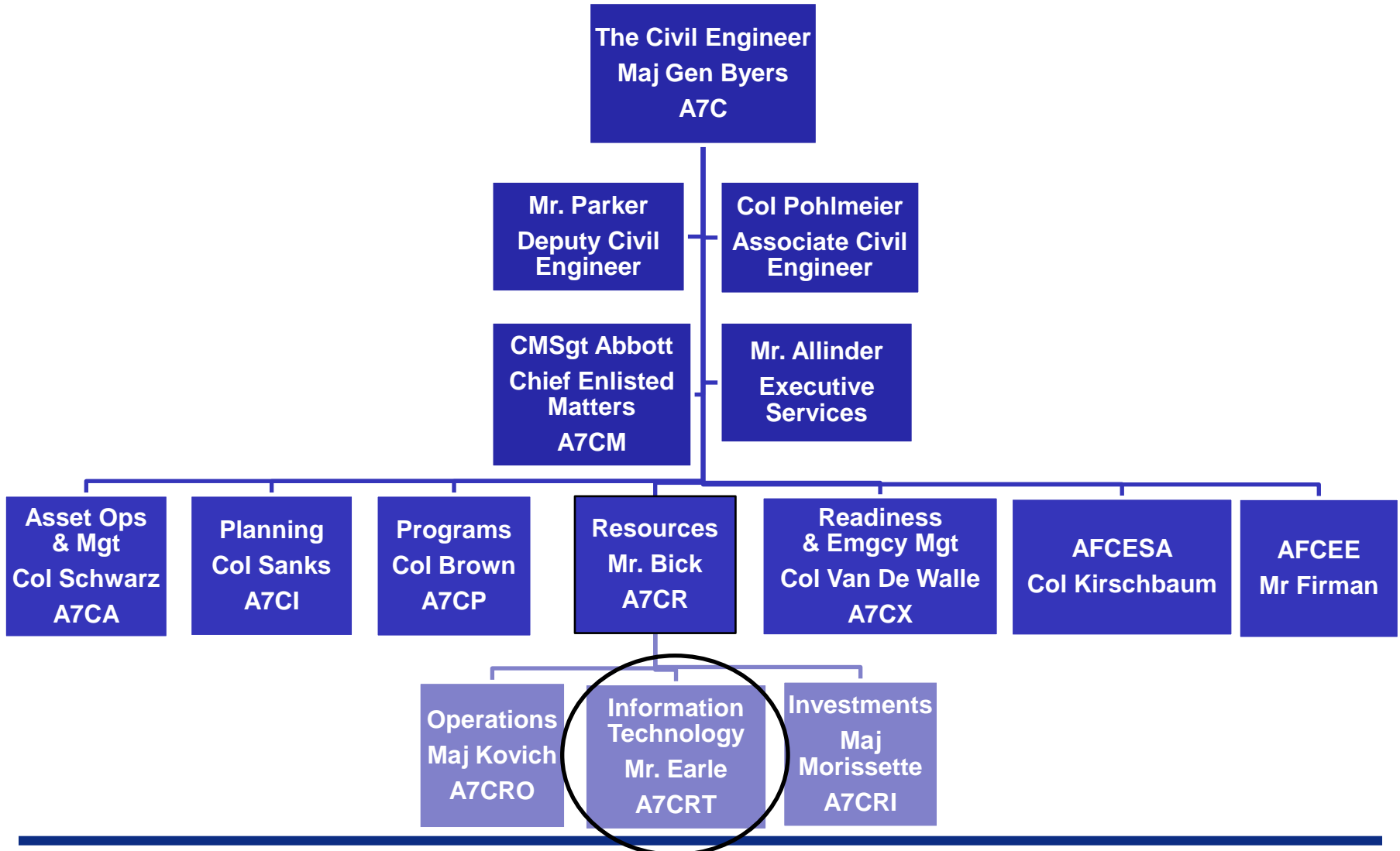
Maj Gen Byers Video Introduction





Program Organization

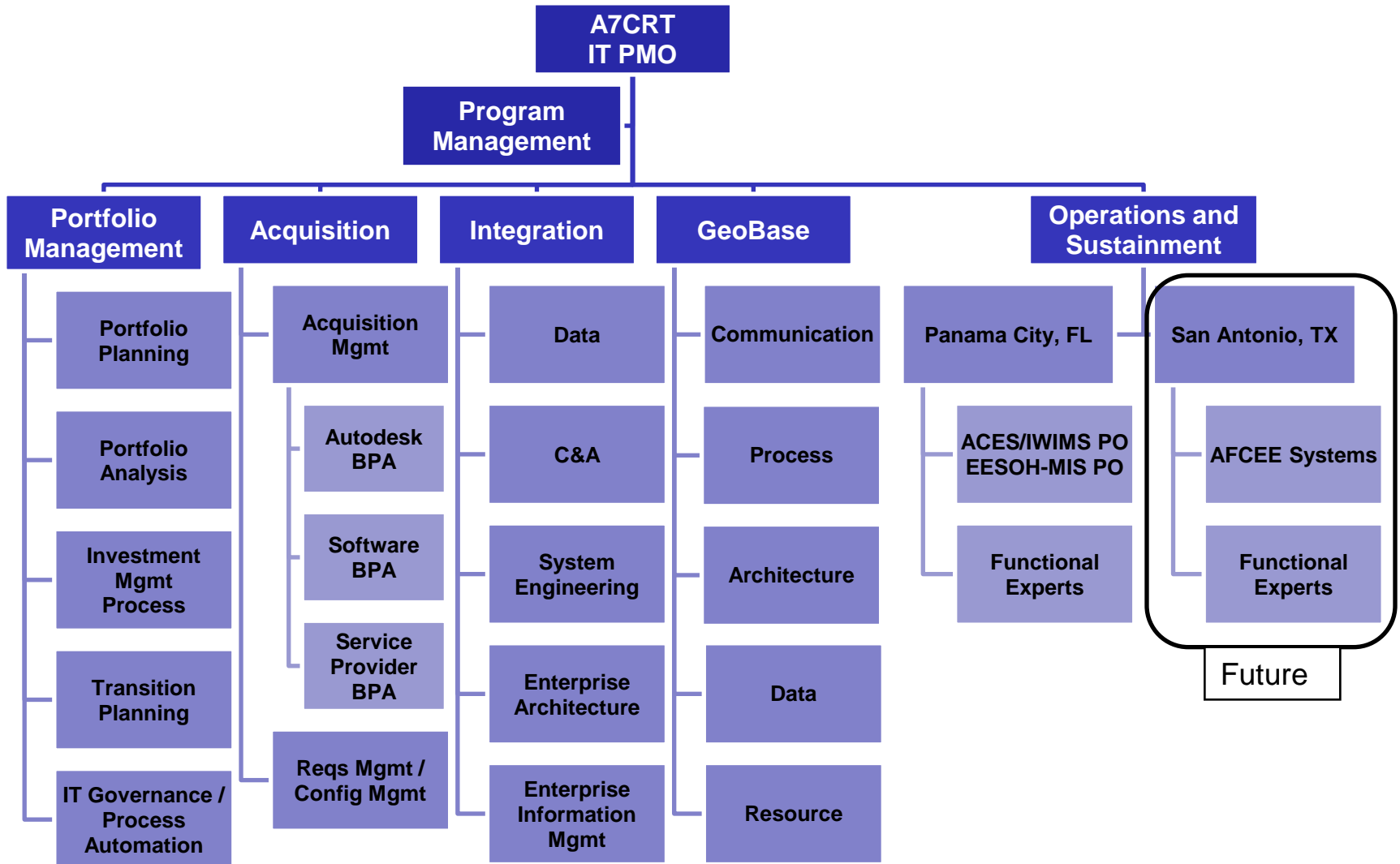
Information Technology Branch





Program Functions

Information Technology Branch





Program Responsibilities

Information Technology Branch

■ Program Management

- Manages A7C IT systems
- Supports IT integration
- Maintains organizational structure, master scheduling and planning
- Develops risk-mitigating strategies

■ Portfolio Management

- Oversees A7C IT inventory
 - Manages IT Capability Request Process
- Researches / Assesses IT
- Performs Annual IT Portfolio Reviews

■ Acquisition

- Manages A7C Enterprise Acquisitions
 - NexGen IT (six Spirals), AutoDesk BPA

■ Integration

- Data Management / oversight
 - Data Communities of Interest (Col)
- Security certification & accreditation (C&A) – 47 systems and growing
- Plans & develops Enterprise Architecture

■ GeoBase

- Manages GeoBase (IGI&S) Program
- Manage Data Standards
- Manages strategy and policy

■ Operations & Sustainment

- Manages legacy A7C systems
 - ACES, IWIMS & EESOH-MIS



Legacy Transition

Legacy IT

- Separate IT systems
- Limited view of assets
- Difficult data entry & retrieval
- Costly maintenance



Integrated IT Solution

- Replaces legacy systems
- Consolidates Air Force data
- Offers one web-based solution
- Uses latest COTS technology
- Enables high-tech devices



Automated Civil Engineering System (ACES)

- Real Property Inventory
- Housing Management
- Project Management



Interim Work Information Management System (IWIMS)

- Financial Management
- Recurring Work (RWP) Coordination
- Real Property Installed Equipment (RPIE) Data

Bridging Initiatives

- Data Cleansing & Standardization
- Activity Mgt Plans (A-File)
- Space Utilization (S-File)
- Process Standardization



Current systems (ACES/IWIMS) in operation since 1995



NexGen IT Guiding Principles

- **Leverage Best Practices (Gov't & Industry)**
- **Leverage COTS solutions**
 - No “customization”...changing code makes it GOTS
 - “Configurable” to meet mission needs
- **Standardized Data – one authoritative source per data element**
 - Eliminate redundant IT systems
- **Total Force solution – Active Duty/Reserves**
- **Open Environment (SOA), Transparent Data, Chartered COIs**
- **Comply w/ DOD & AF Mandates – BEA, Data Standards, etc.**
- **Strong Central Governance Process**





Implementation Approach

- **Prioritized –Transformation of capabilities driven by:**
 - Mission criticality, industry prevalence, maturity of process mapping and capability identification, and data readiness
- **NexGen IT Program**
 - Spiral deployment – Six Spirals deployed over NexGen IT lifecycle
 - Multiple IT capabilities supporting CE transformation
- **Implementation: Incremental & efficient deployment**
 - Spiral 1 & 2 first – Real Property, Work/Supply Mgt, Proj Mgt, Energy Mgt
 - Successive spirals – 3, 4, 5, 6 follow
 - Sundown legacy systems
- **Goals**
 - Field core processes first
 - COTs Solutions – Efficient and rapid deployment
 - Enhance system functionality – refining requirements & exploiting technology
 - Apply lessons learned to improved future system functionality



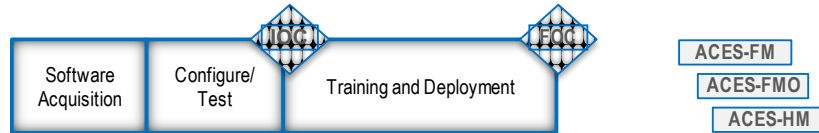
NexGen IT Rollout Sequence



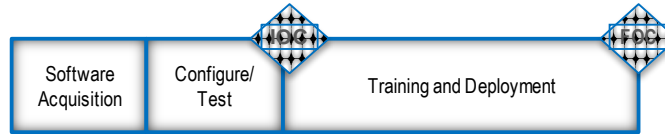
SPIRALS 1.0 AND 2.0
 Real Estate Management
 Work Management
 Supply Management
 Project Management
 Energy Management



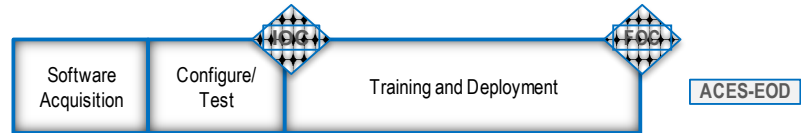
SPIRAL 3.0
 Housing Management
 Furnishings Management
 Financial Management



SPIRAL 4.0
 Environment Management



SPIRAL 5.0
 Strategic Planning
 EOD Operations



SPIRAL 6.0
 Expeditionary Engineering
 Emergency Services
 Fire Operations



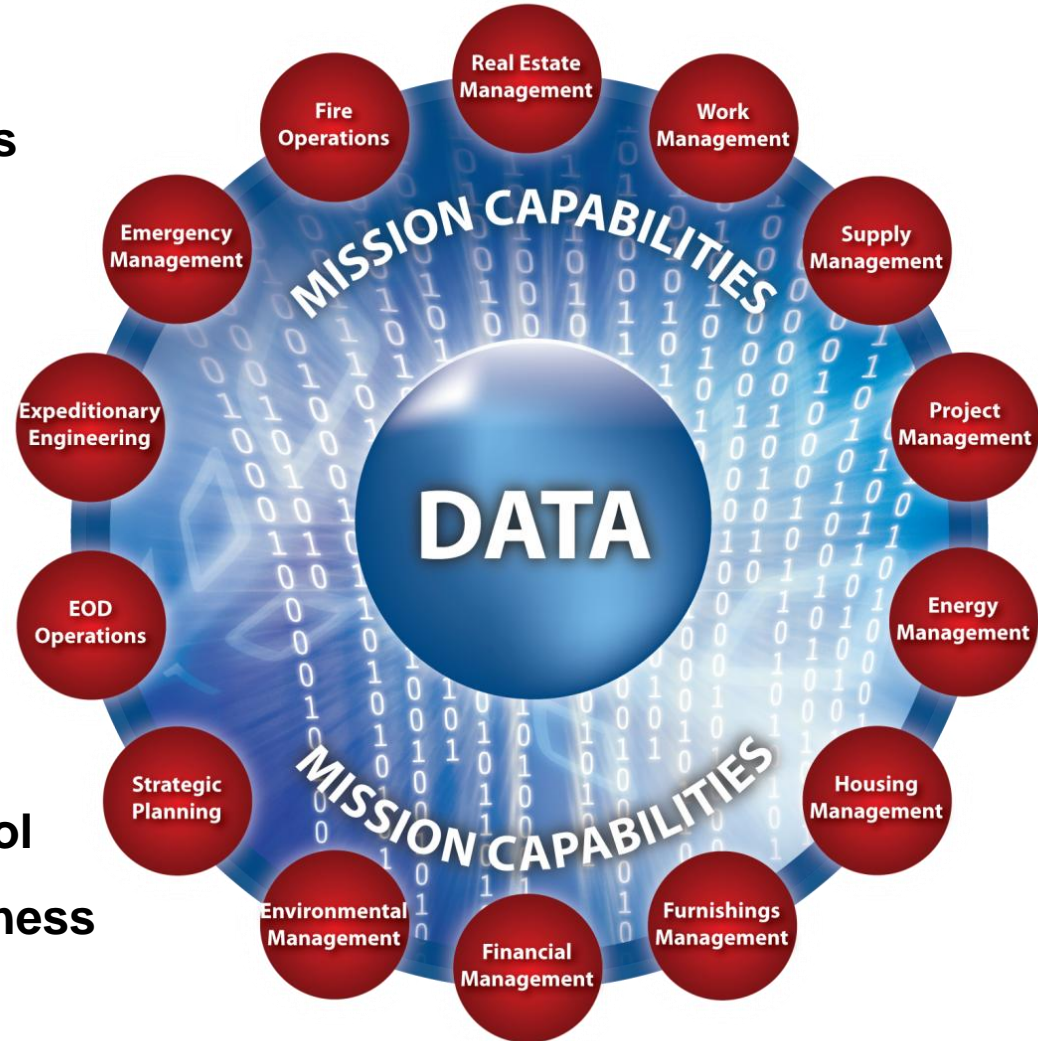


- **Procure NexGen IT Spirals 1.0 and 2.0**
 - Single Blanket Purchase Agreement (BPA)
 - Best value COTS software solution
 - GSA Schedule IT 70
- **Shortly after BPA award, A7C will activities:**
 - Configure and Test software to A7C business processes
 - Select service provider for final configuration and implementation
 - Selection of COTS solutions to satisfy NexGen IT Spirals 3-6
 - Implementation of all selected COTS software solutions



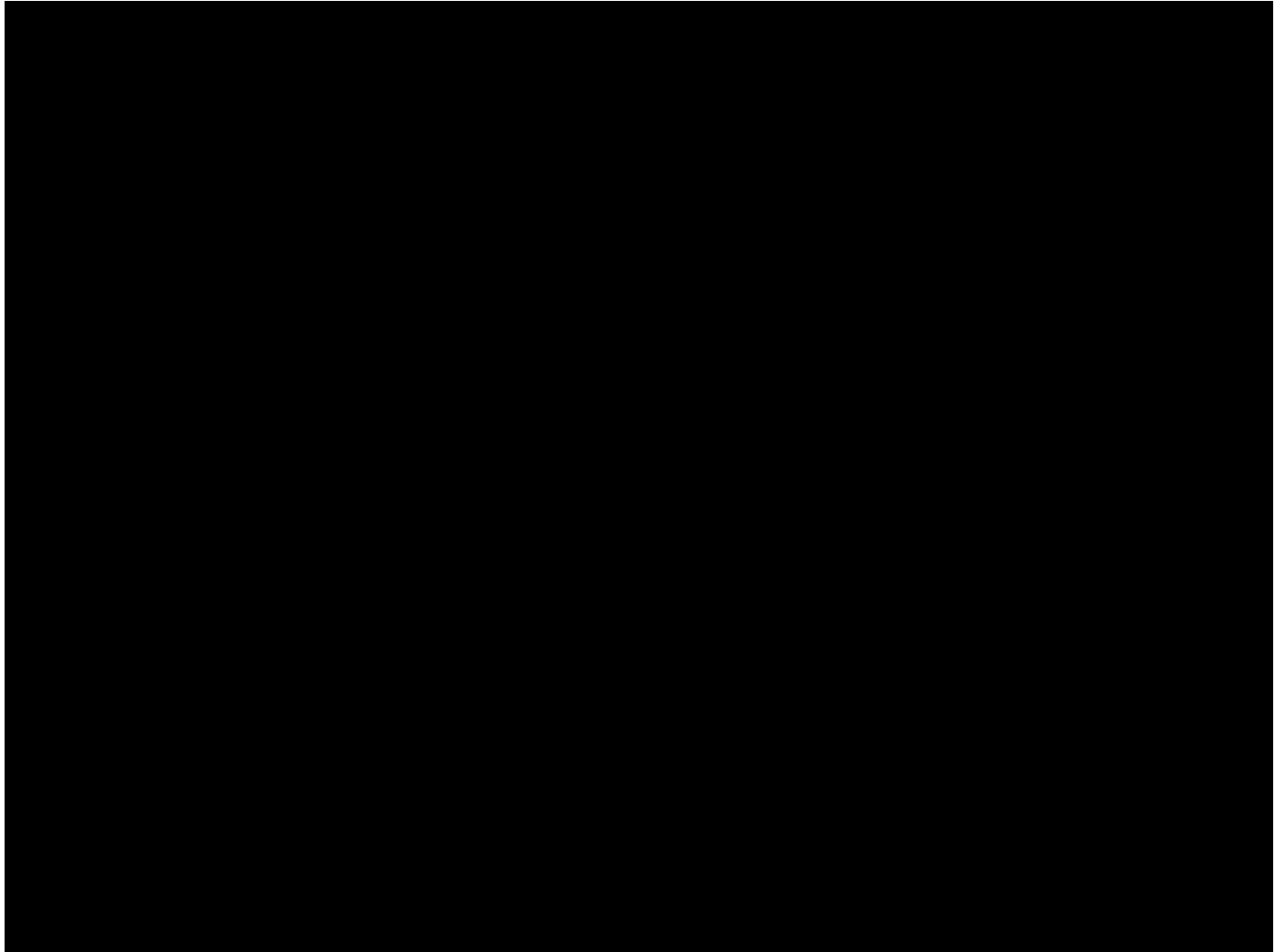
Mission-Focused IT Capabilities

- Easy access to real-time data
- Advanced mapping capabilities
- One web-based solution
- Customizable dashboards
- Total cost visibility
- Digital signatures
- Automated workflow
- User-defined templates
- Centralized document storage
- Document / data version control
- Financial and inventory awareness





Maj Gen Byers Video Conclusion





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- **IT capabilities critical to CE transformation efforts**
 - **Combine CE experience with industry technology**
 - **Business process standardization**
 - **Asset management approach**
 - **Centralized IT management**
- **Spiral implementation of IT capabilities**
 - **Field core business processes first
(e.g., Real Estate, Work / Supply Mgt)**
- **Establish “Centers of Expertise”**
 - **AFCESA – O&M Reachback CoE**
 - **AFCEE – Capital Investment CoE**



Questions?

