Air Armament Center
Engineering and Acquisition Excellence Directorate

Filling the Expertise Gap

LtCol Brad Smith
Deputy Director, AAC/EN

U.S. Air Force

Integrity - Service - Excellence
Briefing Outline

- Who are we?
- What are the challenges?
- What are we doing?
Who We Are

- **Eglin AFB** -- Nation’s Center of Excellence for Air Armament
  - Develops, acquires, tests, fields, and sustains the Air Force’s munitions inventory
  - Becoming a key joint training location, supporting joint training, testing and experimentation
  - A major provider of expeditionary combat support
- **AAC/EN** -- The Air Force’s Center of Technical, Logistics and Program-Management Expertise
  - Develops and advances over 900 people and $48B in policies, processes and tools to deliver precision-strike capabilities to the warfighter.
  - Serves as the Acquisition Center of Excellence for the AAC, creating innovative strategies to rapidly field weapons to the warfighter.

**Weapons to Warfighters…as promised!**
What are the challenges?

- Fewer program start-ups
- Employment downsizing
- Increasingly older workforce
- Declining graduate school enrollment
What are the challenges?

• Decline in number of new program starts
• Historically, infusion of weapon new starts (ACAT I) occurs every 3 years
  – Now focusing on incremental improvements
  – Fewer new starts, but weapons systems complexity continues to increase
• Reduced opportunity for workers to develop breadth by working across different programs and phases
What are the challenges?

DoD Civilian End Strength

- 19.5% workforce reduction
- Fewer organic manpower slots in our program offices
What are the challenges?

As civilian workforce shrinks, number of employees in professional career fields have remained constant.

Not seeing an increase in technical/professional workforce.

AAC has come to rely heavily on A&AS contractors to meet increasing technical demand.
What are the challenges?

AF Civilian End Strength

- Workforce strength “flat” for last 7 years
- Hiring and retaining skilled civilian workers have not changed significantly
What are the challenges?

Age of DoD Civilian Workforce

- Phenomena driven by baby boom population
- Currently 48.2% of US work is 40+ years old; will increase to 51.4% in 2010
- DoD workforce shows same aging trend
What are the challenges?

Retirement Eligibility of DoD Civilian Workforce

- Retiring baby boomers make up about 1/3 of US workforce
- Estimated 40% DoD employees currently eligible to retire; increases to 60% in next 3 to 5 years
- Not enough younger workers to replace retiring workers
What are the challenges?

Retirement Eligibility of AF Civilian Workforce (2005)

- Technical workforce make up the majority of retirement eligible
- Translates into severe workforce shortage of skilled, educated and experienced workers
- Affects IT, Science & Technology, and Engineering careers
What are the challenges?

Career Tenure of AF Civilian Workforce (2005)

- Must focus attention on junior workforce to balance retirement-eligible workforce
- Need to identify and accelerate organization-specific training to improve capabilities of junior workforce
- Requires intervention to groom junior workforce to fill vacating leadership positions
What are the challenges?

Majority of workforce does not possess an advanced degree

Increased technical complexity of systems creates additional demand for advanced degrees
What are the challenges?

Education of AF Civilian Workforce (2005)

- S&E career fields – government positions often considered less attractive than many commercial technical positions
- Significant time and financial commitment of earning an S&E graduate degree compared to other professional degrees
- Complexity of systems creates increased demand
Our Solution

To capture knowledge, wisdom, and experience by:

- Recruiting new talent
  - PALACE ACQUIRE Program
  - Local University/Education Programs
  - NSPS

- Educating & Preserving Knowledge
  - System Engineering Certification
  - Air Armament Academy
  - Acquisition Excellence Organization
Recruiting

- Uses Air Force PALACE ACQUIRE program to maintain a leading edge in today’s technology-intensive recruiting environment
  - Offers 2-3 year training programs for college graduates
  - Tuition reimbursement for graduate school
  - Frequently leads to full time employment
- AAC has acquired 64 of the 873 Air Force Interns
- AAC also has a very active college recruiting program to attract new talent to the center
University of Florida (satellite campus)

- Supports graduate engineering education and research needs
- Academic programs lead to Master of Science and PhD degrees in Aerospace, Mechanical, Electrical/Computer Engineering, and Industrial/Systems Engineering
- Allows cross flow of students into AAC
  - Education for AAC workforce
  - Students support research & technology development
- Also offer a number of other university degree programs on base to encourage education
AAC closely examining proposed NSPS system

Improved Hiring Flexibility
  – Provisions for direct hiring authority of critical needs and severe shortages
  – Speed up hiring process

Performance Management
  – Ties job performance to new pay band system
  – Intended to attract, develop retain and reward high performing employees
Systems Engineering Certification

- Senior leaders communicated support throughout enterprise
- Program develops and trains engineers and scientists to implement systems engineering with rigor within their individual programs/projects
- Closely aligned with new OSD & Air Force initiatives to enhance DoD system engineering processes
AAC’s Solution

A3 – Air Armament Academy

- Transformed AAC into a learning organization
- Captures and shares collective learning assets (the “know-how” and the “know-why”)
- Designated training days integrates learning as a part of everyone’s daily activities
- Everyone in the center is involved in teaching, learning and supporting continuing education
A³ Structure

**A³ Provost**
AAC/DP

**President**
MG Chedister
AAC/CV

**Vice President**
AAC/CV

**A³ Project Manager**
AAC/DP

---

**College of Acquisition**
Dean – AAC/CA
Associate Dean
AAC/EN
College POC
Acting: A³

**Departments**
- Air-to-Air Wg
- Air-to-Ground Wg
- Combat Supt Gp
- XR EN FM PK AE
- OT (53rd WG)

**College of Test & Evaluation**
Dean – Test Wing
Associate Dean Test Wing
College POC

**Departments**
- DT SK
- MX TS
- XP OG

**College of Science & Technology**
Dean – AAC/CA
Associate Dean
ARL/MN
College POC

**Departments**
- MNA MNO
- MNG MNK
- MNM MNF

**College of Install Sustainment & Management**
Dean – ABW
Associate Dean
Air Base Wing
College POC

**Departments**
- CE CG MD MS
- CPTS CONS MEO
- AAC Staff (IG EEO PA DP SE HO XP)

---

**A³ Curriculum Board Members**
Acquisition Excellence

- New division within AAC Engineering Directorate
- Acquisition Center of Excellence
  - Repository for lessons learned
  - Center for acquisition policy & strategy
  - Assist in all phases of acquisition
- Program Management Division
  - Home office for Program Managers
  - Central role in Program Management career development and career broadening
  - Better manage rotation of Program Managers to ensure we are developing people with the right experience
  - Manage training, education and experience to assure proper development for future leaders
Challenge Summary

- Our senior expertise is moving towards retirement (both organic and contractor support)
  - Strong need to replace retiring workers
  - Must train, educate & mentor new workforce
  - Challenge due to reduced pool of S&E recruits

- AAC/EN has designed initiatives to capture knowledge, wisdom, and experience for developing future workforce
Questions?
Who Are We?

SDB
FLIGHT TESTING
REAL WORLD...
REAL SUCCESS!

Small Diameter Bomb
"Sometimes BIG things come in small packages"
JASSM