

# ***Air Armament Center***

## ***Engineering and Acquisition Excellence Directorate***

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## ***Filling the Expertise Gap***

***LtCol Brad Smith***  
***Deputy Director, AAC/EN***

***U.S. AIR FORCE***

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***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!**



# Air Armament Center





# What are the challenges?



- Fewer program start-ups
- Employment downsizing
- Increasingly older workforce
- Declining graduate school enrollment



# What are the challenges?



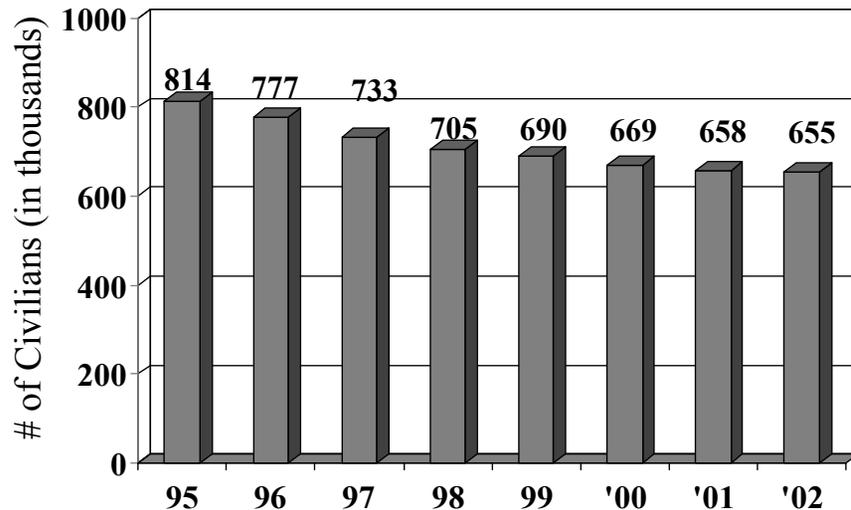
- Decline in number of new program starts
- Historically, infusion of weapon new starts (ACAT I) occurs every 3 years
  - Now focusing on incremental improvements
  - Fewer new starts, but weapons systems complexity continues to increase
- Reduced opportunity for workers to develop breadth by working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



# What are the challenges?



## DoD Civilian End Strength



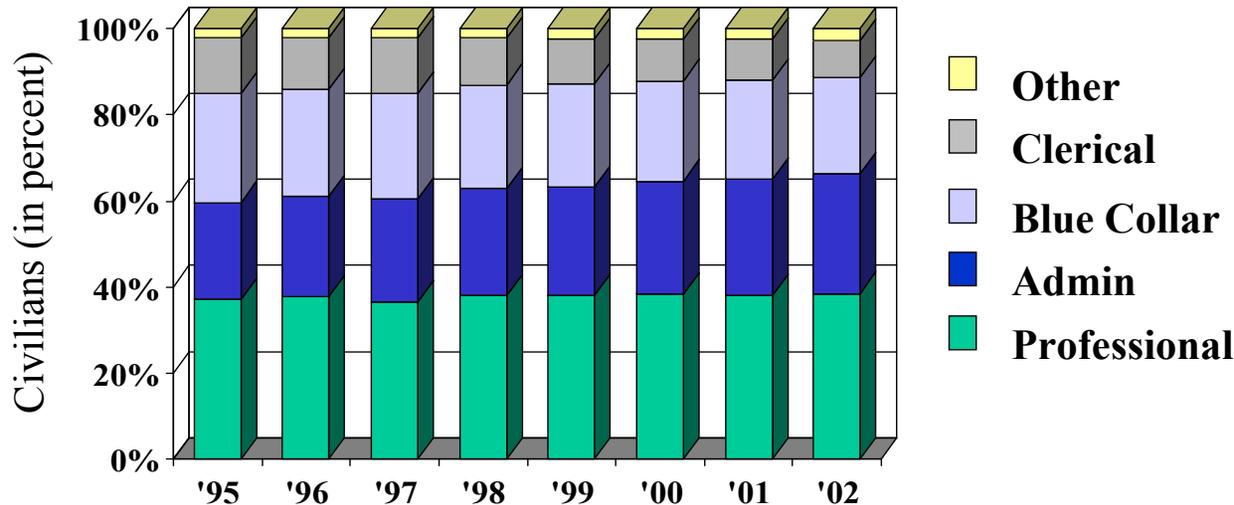
- **19.5% workforce reduction**
- **Fewer organic manpower slots in our program offices**



# What are the challenges?



## DoD Civilian Workforce



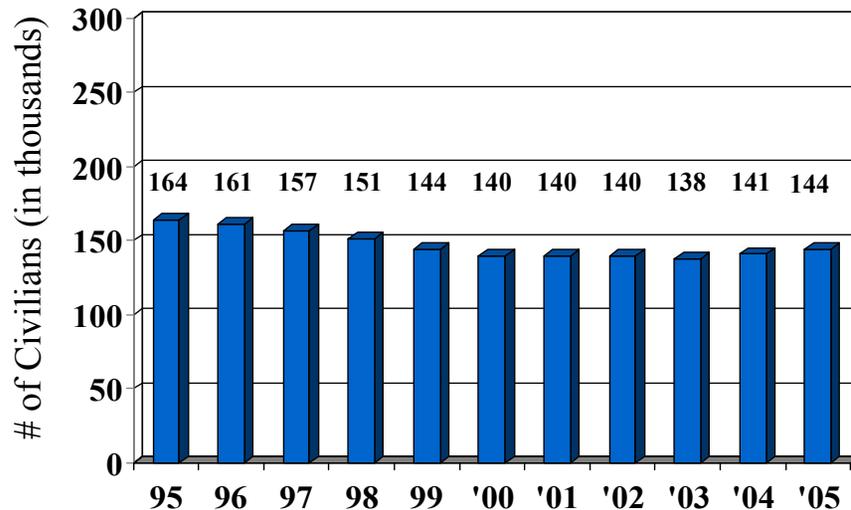
- As civilian workforce shrinks, number of employees in professional career fields have remained constant
- Not seeing an increase in technical/professional workforce
  - AAC has come to rely heavily on A&AS contractors to meet increasing technical demand



# What are the challenges?



## AF Civilian End Strength



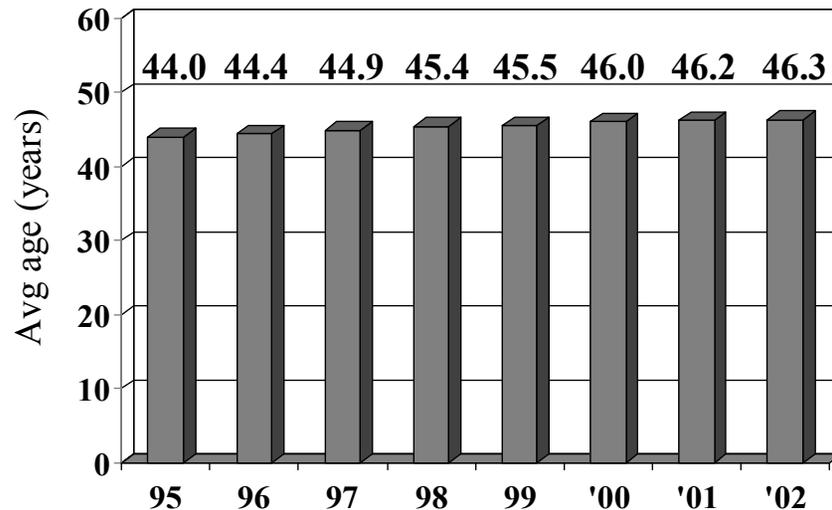
- Workforce strength “flat” for last 7 years
- Hiring and retaining skilled civilian workers have not changed significantly



# What are the challenges?



## Age of DoD Civilian Workforce



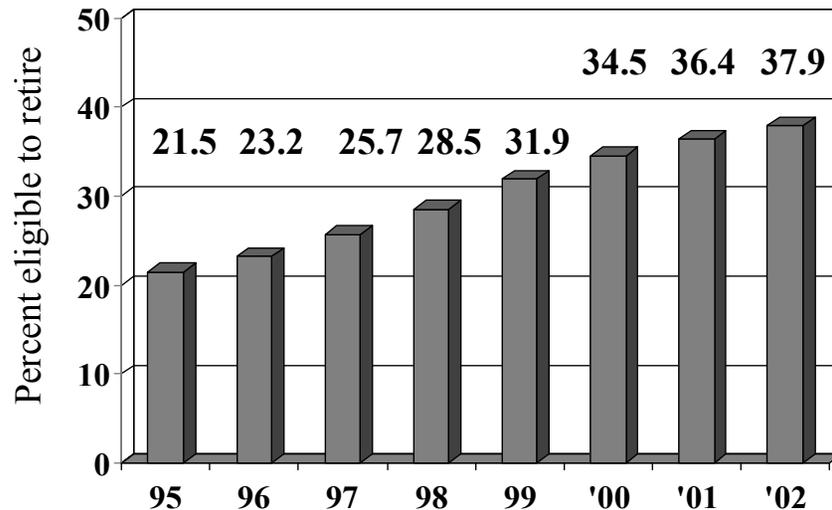
- Phenomena driven by baby boom population
- Currently 48.2% of US work is 40+ years old; will increase to 51.4% in 2010
- DoD workforce shows same aging trend



# What are the challenges?



## Retirement Eligibility of DoD Civilian Workforce



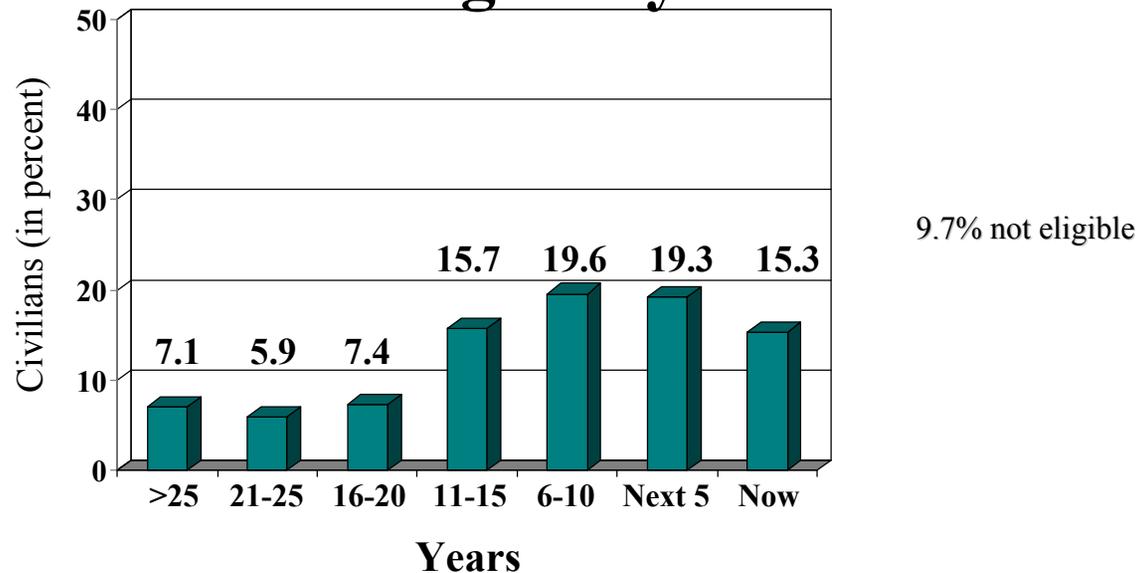
- Retiring baby boomers make up about 1/3 of US workforce
- Estimated 40% DoD employees currently eligible to retire; increases to 60% in next 3 to 5 years
- Not enough younger workers to replace retiring workers



# What are the challenges?



## Retirement Eligibility of AF Civilian Workforce (2005)



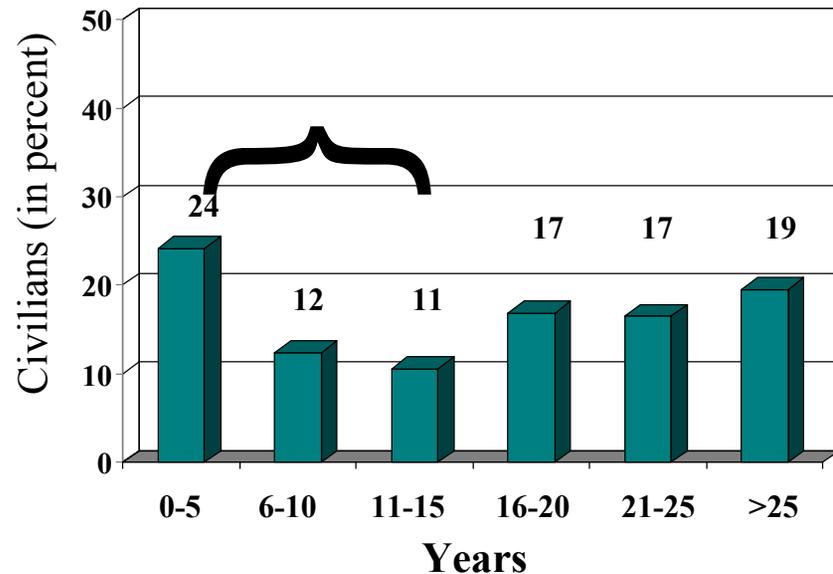
- **Technical workforce make up the majority of retirement eligible**
- **Translates into severe workforce shortage of skilled, educated and experienced workers**
- **Affects IT, Science & Technology, and Engineering careers**



# What are the challenges?



## Career Tenure of AF Civilian Workforce (2005)



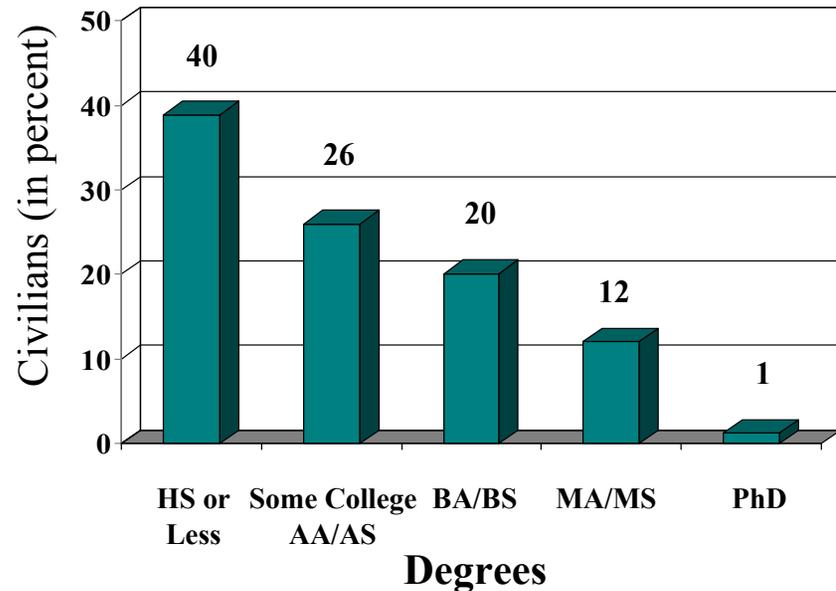
- **Must focus attention on junior workforce to balance retirement-eligible workforce**
- **Need to identify and accelerate organization-specific training to improve capabilities of junior workforce**
- **Requires intervention to groom junior workforce to fill vacating leadership positions**



# What are the challenges?



## Education of AF Civilian Workforce (2005)



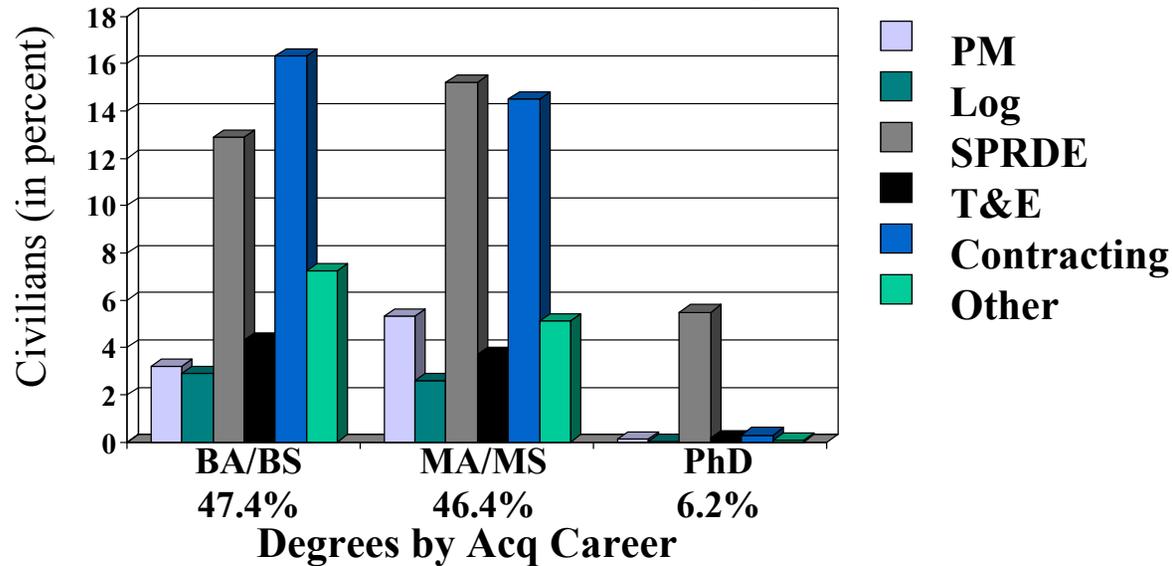
- **Majority of workforce does not possess an advanced degree**
- **Increased technical complexity of systems creates additional demand for advanced degrees**



# 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



# Our Solution



## 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



# Education



## 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



# National Security Personnel System



- 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



# AAC's Solution



## 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

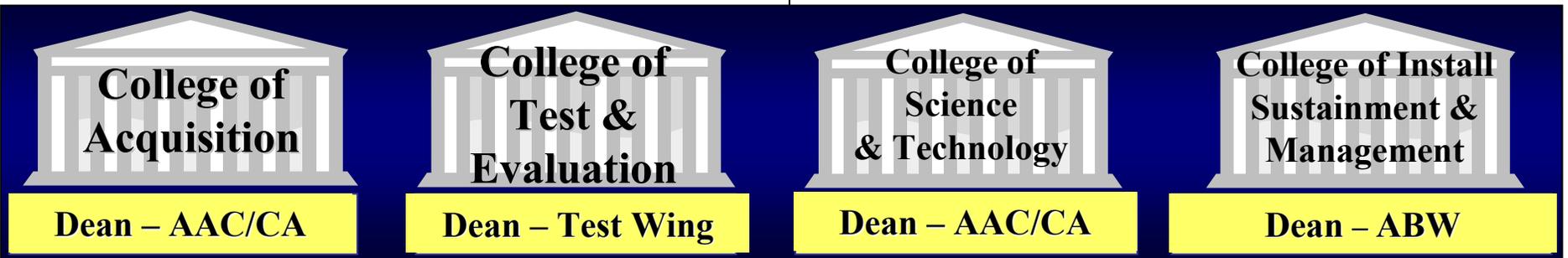
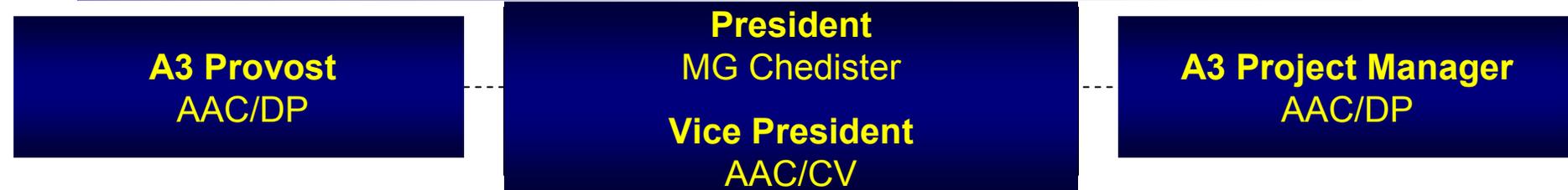


## A3 – Air Armament Academy

- 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



# A<sup>3</sup> Structure



**Associate Dean**  
AAC/EN

**Associate Dean**  
Test Wing

**Associate Dean**  
ARL/MN

**Associate Dean**  
Air Base Wing

**College POC**  
Acting: A3

**College POC**

**College POC**

**College POC**

**Departments**

- Air-to-Air Wg
- Air-to-Ground Wg
- Combat Supt Gp
- XR EN FM PK AE

**Departments**

- DT SK
- MX TS
- XP OG
- OT (53<sup>rd</sup> WG)

**Departments**

- MNA MNO
- MNG MNK
- MNM MNF

**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



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# Questions?



# Who Are We?



**SIDB**

**FLIGHT TESTING  
REAL WORLD...  
REAL SUCCESS!**

*Small Diameter Bomb*

*"Sometimes BIG things come in small packages"*

A small logo in the bottom right corner of the advertisement, featuring a diamond shape with the letters "SIDB" inside.



# JASSM

