

# Air Education and Training Command

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*Sustaining the Combat Capability of America's Air Force*



**U.S. AIR FORCE**

## Maintenance Training

Brig Gen Arthur J. Rooney, Jr.

28 Oct 2003

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*Integrity - Service - Excellence*



# Overview



**AETC**

- **The 82d Training Wing — creating “Combat Capability”**
- **High Fidelity Maintenance Trainers**
- **Delivering Training at the Point of Need (FTDs)**
- **Contractor Field Support**
- **Modernization of Naval Maintenance Concepts**



# 82d Training Wing



**AETC**



- Sheppard courses produce **100% of AF maintenance graduates**
- NPS avg daily student load = 5,000
- Total students at Sheppard = 9,000
- 46 geographically separated units around the world
- Students at GSU's = 3,000
- FY03 graduates = 61,000

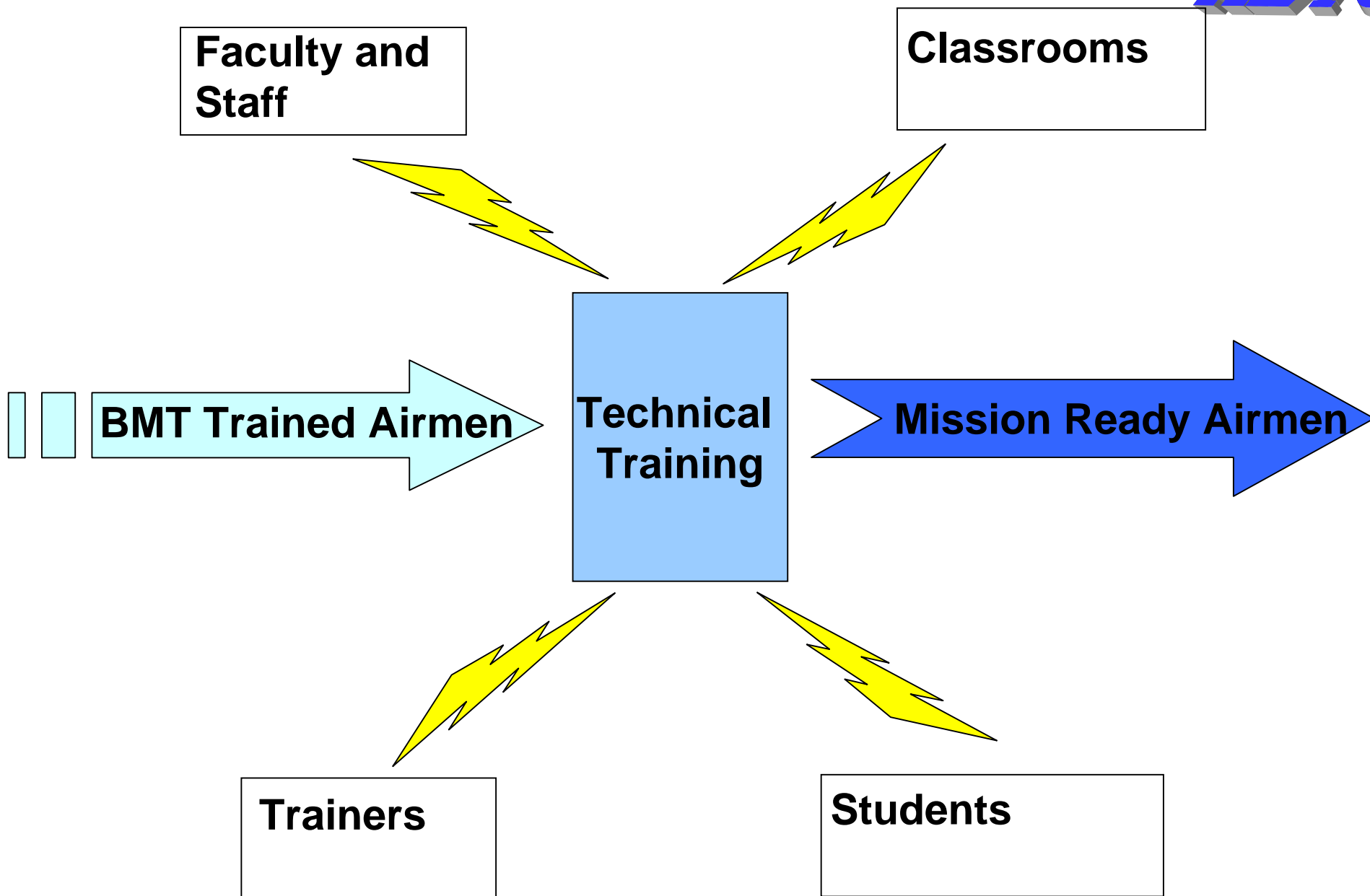




# Initial Skills Training



**AEITC**





# Initial Skills Training



**AETC**

- Maintenance career fields access 18,000 students in FY03
  - High School graduates
  - Limited technical expertise
- 63 initial skills courses provided
  - Weapons/Munition Career Fields
  - AGE Career Field
  - Avionics Career Field
  - Crew Chief Career Field
  - Egress/E&E/Hyd Career Fields
- Courses developed from U&TW inputs
  - Career Field Manager/MAJCOM Functionals drive requirements
  - Course length dictated by specialty training standards





# Initial Skills Training



**AETC**

- Motivated Instructor Cadre
  - 980 instructors assigned
  - Average grade E-5/GS-09
  - 94% with associates degree
- Teaching accredited CCAF courses
- Utilize Ground Instructional Training Aircraft... 88 assigned at Sheppard
  - Initial weapon system exposure
  - Load realistic munitions
  - Perform actual TO requirements
- Incorporating latest technology into the classrooms
  - Increasing student task/knowledge retention





# Meeting the Challenge



- Create the Synergy... Training Operations
- Build Infrastructure Support... Facility Plans
- Technology Crosstells... Tech Expo
- Partnership with Industry... Sharing Ideas
- Continuous Improvements Across Training
  - Transforming Classrooms
  - Streamlining Processes
  - Incorporate Six Sigma



# Focus on *Synergy*



- **Wing Training Operations**
  - Single focal point for policies, programs & issues
  - Realigned duplicate functions from 4 tech training groups
- **Innovative education and training programs**
  - Dorm utilization
  - Capacity oversight
  - Learning Development Center
  - Production metrics
- **Future programs:**
  - Technology leveraging
  - Unified military training policy
  - Military training “stan-eval”





# New Facilities



**AETC**

- **Constructing 8 pipeline dorms – 600 beds each**
  - Project 8,400 bed spaces without triple bunking by 2010
- **New dining facility**
  - Capable of seating 1,500 students



- **Upcoming construction projects:**
  - Training student support facility
  - Trainer maintenance & development facility
  - F-22 Training facility
- **Looking ahead to support Joint Strike Fighter training** <sup>9</sup>



# Technology Showcase



**AETC**

- **Technology Exposition – Oct 03**
  - Advanced Technology Council, Inc.
  - Raise awareness, exchange ideas, build relationships
  - Over 40 Vendors and 600 visitors
- **Local schools and industry**
  - MSU, Vernon, Wayland Baptist, public schools, BCI, mayor, city council, judges, etc.



- ***“Best Tech Expo we’ve had in seven years”***



# Expanding Partnerships



- Union Pacific Railroad – technology benchmark
- Univ of N. Carolina at Wilmington – courseware sharing
- Naval Aviation Technical Training Center
- Midwestern State University – intern program
- Auburn University – courseware sharing



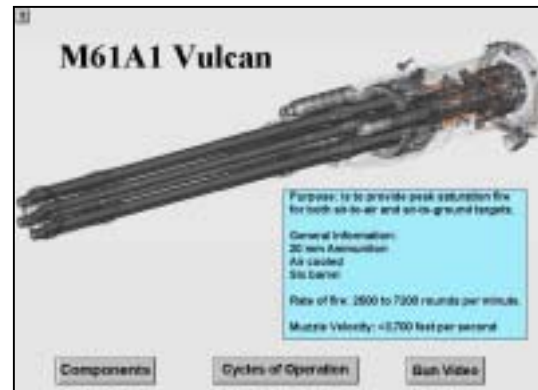
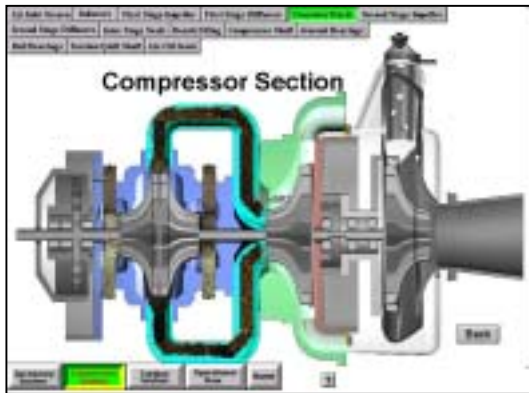


# Classroom Transformation



**AETC**

- Challenge: Keep pace with global technology revolution
  - Teaching Nintendo generation with 20th century techniques
  - Student difficulty grasping skills taught in traditional settings



- Future: Transform training to state-of-the-art digital world
  - Interactive 3D computer animations
    - Training time reduced - failure rates down
  - F-15E virtual reality provides faster, better, cheaper training
    - Potential for expansion: B-2, F-117, and F-22



# Streamlining the Process



**AEIC**

- **Fighter Crew Chief Commons course – 19 days**
  - Reduced course by 4 days - decrease “Cold” training

- **U&TW drove streamlined track training:**

<u>A/C</u>	<u>Old</u>	<u>New</u>	<u>Tot Delta</u>
F-16	71	65	- 10
F-15	71	55	- 20
A-10	63	54	-13



- **Shift in philosophy**
  - Emphasize hands-on “*Hot*” training
  - More relevant training for specific MDS

- **Put airmen on the flight line faster** (*create Combat Capability!*)

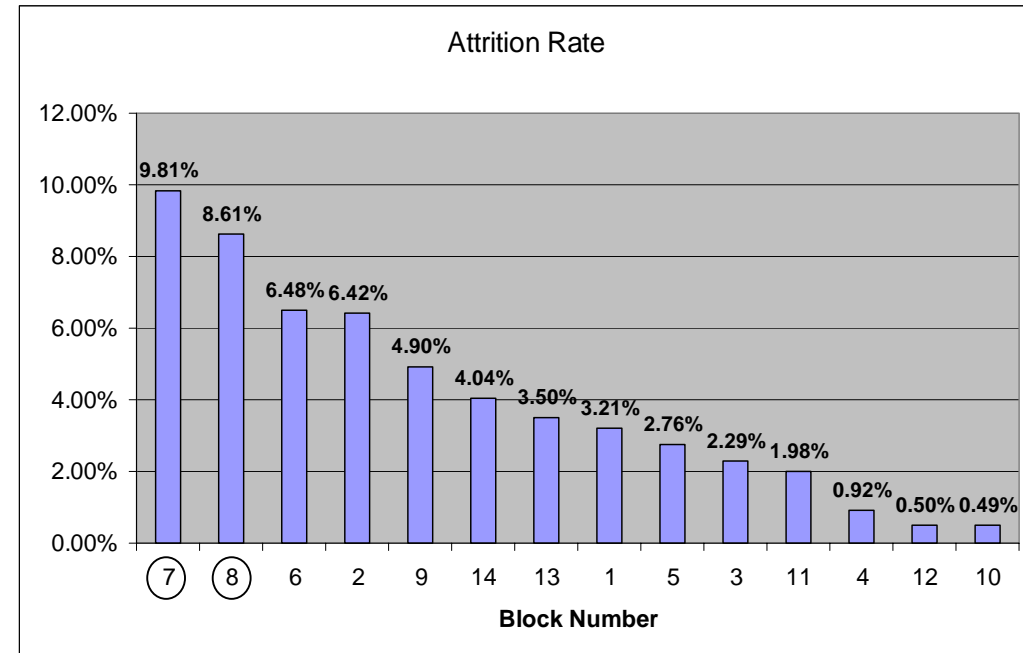


# Six Sigma Improvement



**AETC**

- Fact based decision making
- AGE Course
  - 34% washback rate
  - Blks 7 & 8 = 33% of failures
- Analysis
  - Too much info in blks 7 / 8
  - Course structure
  - Instructor inconsistency
- Transformation
  - Restructure course: 14 to 17 blks
  - Progressive flow: fundamentals, hands-on, servicing
  - Instructor mentoring / cross tell
  - 3-D animated technology insertion
- Impact: “attrition rate reduced by 18%-saved \$187K”



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