

Air Education and Training Command



U.S. AIR FORCE

Education & Training Technology Application (ETTAP) Program

AETC/A5TT

15 May 07

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Integrity - Service - Excellence



Overview



- Education Training Technology Application Program (ETTAP) Summary
- Examples of current projects
- Three new opportunities



ETTAP Summary



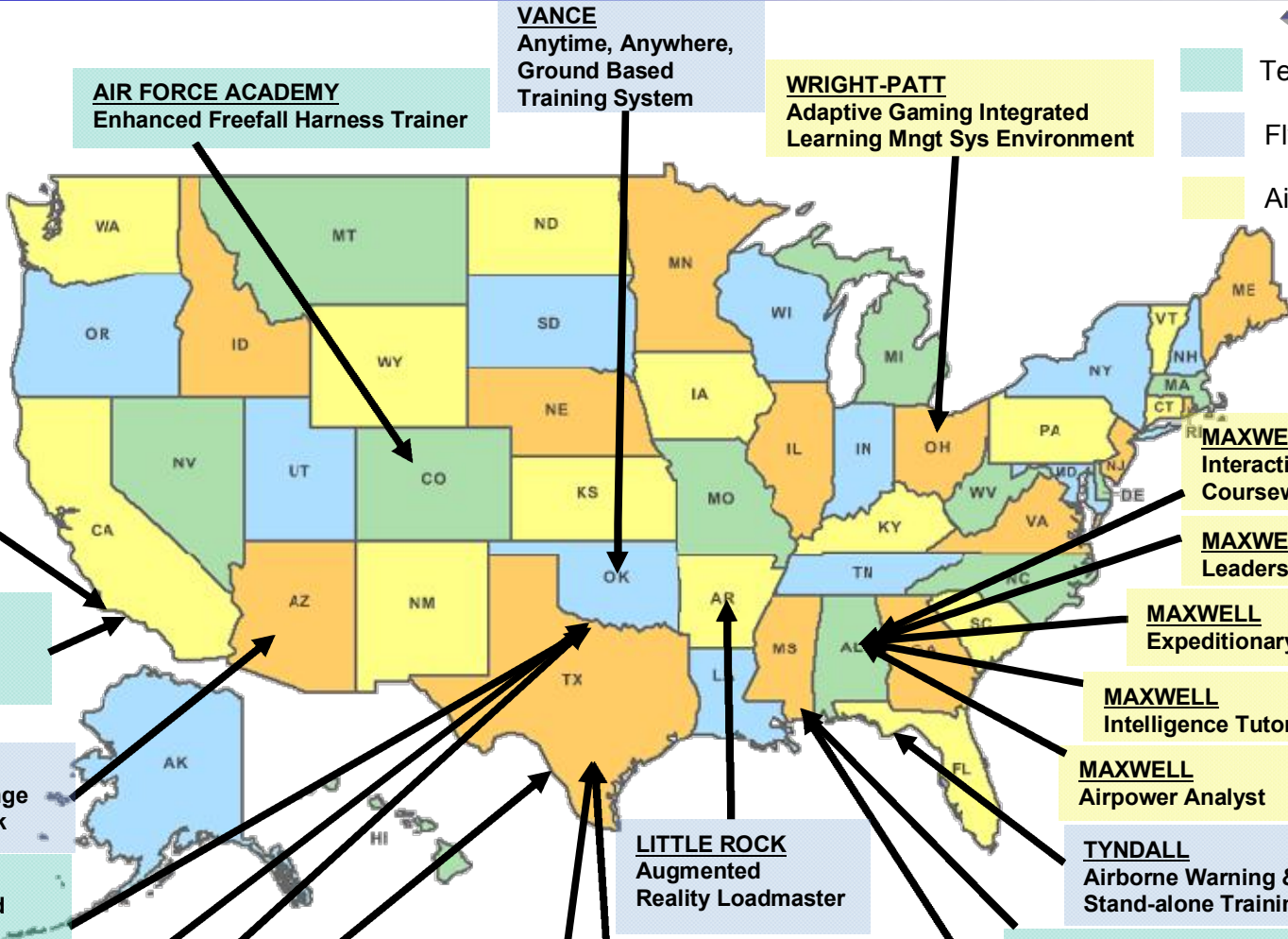
- A proof-of-concept
- Linked to an AETC education or training requirement
- Of acceptable risk (financial, developmental, implementation, time, availability, benefit vs cost)
- Measurable
- Completed within approximately 18 months
- Of potential use across AETC
- Cost \approx \$200K - \$700K
- Current Projects
 - 21 projects totaling over \$4.5M across 10 AETC bases
- FY07
 - Funding certification received 24 Apr 07



Current Projects



- Technical Training
- Flying Training
- Air University



VANCE
Anytime, Anywhere,
Ground Based
Training System

WRIGHT-PATT
Adaptive Gaming Integrated
Learning Mngt Sys Environment

AIR FORCE ACADEMY
Enhanced Freefall Harness Trainer

VANDENBERG
Standardized
Space Trainer

PORT HUENEME
Point-2-Point Wiring
& Signal Tracing

LUKE
Barry Goldwater Range
Live Virtual Data Link

SHEPPARD
Electronic Hand-Held
Devices

SHEPPARD
Generalized Operations
Sim Environment

SHEPPARD
3D Knowledge Models

LAUGHLIN
Virtual Interactive Pattern
Environment & Radio
Comm Sim

LITTLE ROCK
Augmented
Reality Loadmaster

LACKLAND
Tablet PCs w/Dog Training

LACKLAND
Weapons Cycle of Operations

MAXWELL
Interactive Scenario
Courseware Development

MAXWELL
Leadership Development Sim

MAXWELL
Expeditionary Airbase Sim

MAXWELL
Intelligence Tutoring

MAXWELL
Airpower Analyst

TYNDALL
Airborne Warning & Control System
Stand-alone Training

KEESLER
Ultimate Virtual Classroom

KEESLER
Squadron Host Aviation
Resource Mngt Console Lab



BMGR Data Link Integration



- **Description:** AFRL developed software to facilitate live, virtual, constructive Link-16 integrated training on Barry Goldwater Range
- **Customer:** 56 FW (Luke AFB AZ)
- **Vendor:** AFRL/HEA (Mesa)
- **Benefits:** Significantly enhance AETC training across the Distributed Mission Operations battlespace



Expeditionary Airbase Simulator



- **Description:** A multi-player, 3D, real time strategy, city building game. The simulation of the build-up and sustainment of an expeditionary airbase that will allow students to apply leadership and followership skills
- **Customer:** Air University Maxwell AFB
- **Vendor:** KMS Technologies
- **Benefits:** Increase comprehension of complex combat theater operations



Augmented Reality Training for C-130 Loadmaster



- **Description:** Head-mounted see through goggles that allows loadmasters to see the real cargo environment with virtual pallets and emergency situations overlaid
- **Customer:** C-130 Aircrew Training System (ATS)
Little Rock AFB AR
- **Vendor:** Pathfinder Sys Inc
- **Benefits:** Fills training gap left by loss of loadmaster training flights



VIPERS



- **Description:** Virtual Interactive Pattern Environment and Radiocomms Simulator (VIPERS). PC-based interactive training with voice recognition for situational awareness and radio communications in primary pilot training traffic patterns. VIPERS includes simulation, intelligent entities, assessment of voice communications, and debrief technologies
- **Customer:** 84 Flying Training Squadron, Laughlin AFB
- **Vendor:** AFRL contract to CHI Systems
- **Benefits:** Replaces “carpet pattern” – Potential to save one flight sortie for most SUPT students



AWACS Voice Recognition



- **Description:** Program to test intelligent voice recognition capability for AWACS training scenarios
- **Customer:** 325th ACS, Tyndall AFB FL
- **Vendor:** Southwest Research Institute
- **Benefits:** Save man hours with elimination of surrogate instructor pilots



Generalized Operations Simulation Environment (GOSE)



- **Description:** Use legacy part-task trainers for haptic feedback in full virtual environment to make obsolete trainer match current weapon system
- **Customer:** HQ AETC
- **Vendor:** Southwest Research Institute
- **Benefits:** Virtually display current weapon system configuration as an interactive overlay on legacy part task trainers to achieve currency through software changes instead of hardware modifications



Intelligent Tutoring System



- **Description:** Use of student adaptive learning & instructional gaming strategies to assess & enhance Officer Trainees' basic writing skills
- **Customer:** AF Officer Accession and Training School, Maxwell AFB
- **Vendor:** MultiMax
- **Benefits:** Upgrade writing skill sets to be more suitable to military applications



Standardized Space Trainer



- **Description:** An off-the-shelf computer system coupled with state-of-the-art emulation software to provide a low-cost, standardized satellite operations trainer capable of simulating multiple satellite systems (GPS and DSCS) on a single computer
- **Customer:** 533 Training Squadron Vandenberg AFB
- **Vendor:** Sonalysts Inc. through AFRL SBIR contract
- **Benefits:** Develop and train multiple space platforms from a common courseware development application



Electronic Handheld Devices



- **Description:** Integration of PDAs and software to replace printed textbook references for use in Independent Duty Medical Technician course
- **Customer:** Sheppard AFB
- **Vendors:** Hewlett-Packard, Epocrates Inc., Lippincott, Williams & Wilkins, and Skyscape
- **Benefits:** Increase analytical skills and competency. Reduce attrition rates and unsatisfactory scores on critical items in Clinical Practicum



ETTAP 2007



- Three new opportunities
 - USAF primary pilot training Ground Based Training System (GBTS) modification
 - Interactive Scenario Courseware Development
 - Use of Portable PCs with Dog Training



Anytime, Anywhere Ground Based Training System



- **Description:** Provide proof-of-concept data to AETC leadership in the transformation of Specialized Undergraduate Pilot Training (SUPT) Ground Based Training System (GBTS) from the current segregated and hard scheduled events to a multi-point access training system allowing anytime, anywhere training.
- **Customer:** Specialized Undergraduate Pilot Training (SUPT) T-6 Joint Primary Pilot Training / (P-V4A-J) at a base chosen by AETC/A3F
- **Vendor:** TBD
- **Benefits:** Just-in-time learning and use of learning law of recency
- **Status:**
 - Published RFI in FedBizOps Apr 12



Interactive Scenario Courseware Development



- **Description:** Develop a common simulation-based platform that can be used to enhance or replace current paper-based leadership case studies at Air War College (AWC) and Air Force Officer Accession Training School (AFOATS). Replace the current video counseling training package to PC-based interactive simulation with reusable AVATAR (computer-generated images of humans) development software
- **Customer:** Air University Air War College and Air Force Officer Accession Training School (AFOATS)
- **Vendor:** TBD
- **Benefits:**
 - Use of AVATAR technology will present and evaluate mastery of objectives in a standardized way in a realistic environment
 - Support of distance learning for the operational Air Force
- **Status:**
 - RFI published in FedBizOps Apr 30



Use of Portable PCs w/Dog Trng



- **Description:** Portable computer electronic performance support system, includes CBTs, used in dog training environments (instructors-/students- handler/trainers; tracks canine students also), and also integrates with the current multi-service Working Dog Management System
- **Customer:** DoD Military Working Dog Center (341 TRS Lackland AFB TX)
- **Vendor:** TBD
- **Benefits:** Assessment of current technology in portable devices for use in field conditions during training. Replace paper based support material in the field.



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