“Air & Space Warriors for the 21st Century”
Learning USAF Doctrine Through Simulation

U.S. Air Force

Approved for public release, distribution unlimited

Overview
Air and Space Basic Course Background
Expeditionary Airbase Simulation
Theater Airpower Visualization
Summary
Air & Space Basic Course

- Corona identified need to overcome “Tribes” (career-fields) mentality for an “Airman” identity
- Basic course for newly-commissioned 2nd Lieutenants: 5-6 weeks at Maxwell (1998)
- Common officer (USAFA, OTS, ROTC commissioning sources) PME: leadership, teamwork, problem solving, and physical conditioning
- Heavy focus on airpower basic warfighting doctrine at application level (wargaming)
In 1999, Squadron Officer School (SOS) for Captains merged with Air and Space Basic Course (ASBC) for 2\textsuperscript{nd} Lieutenants.

Squadron Officer College (SOC) provides administrative, curriculum development, and mission support to both schools.

Schools each have Commandants who focus on classroom instruction.
Air and Space Basic Course

Expeditionary Airbase Simulation (EAS)

“Air & Space Warriors for the 21st Century”
Expeditionary Airbase Simulation

- Expeditionary airbase “citybuilder” simulation concept in SOC in 2002
- SOC submitted ETTAP proposal to AETC in Fall 1996; approved December 2006
- BreakAway Ltd and KMS Inc went on contract in Jan 2007 for 10 month project
- Final deliverable sim & doc in Nov 2007
- EAS will debut in ASBC classrooms during Class 08D (May-Jun 07)
EAS Concepts

• First USAF simulation to focus on airbase or installation level (vs flight sim or AOC)
• Expeditionary airbase level helps show how each career field contributes to mission
• GWOT expeditionary airbases: 16 for OEF, 16 for OIF
• Students have better idea where they fit in and what their peers do
• Understand “moving parts” at airbase as groups and squadrons team together
Divide the flight into 5 teams: a base command section (2) and four functional groups of 3 students each in the following roles:
GROUP ROLES

Org structure is arbitrary and not representative; used to distribute workload and keep each student group engaged throughout.
EAS INTERFACE

Pull-Down Menus
Display Buttons (5)

Resource Display

Mode Buttons (7)

Menu Display

Message Area

3-D World

Compass Rose
EAS Objectives

- Flight is evaluated as an airbase team
- Objectives for expeditionary airbase exercise developed from AFDD1-1

Organizational Leadership Competencies
- Supervise Airmen
- Accomplish Mission: Build up airbase and generate combat sorties
- Manage Resources
SUPERVISE AIRMEN

Health/Welfare of Airmen is one of three evaluation areas for air base command. Morale is measured daily and averaged.

Sick, injured, or fatalities (terrorist attack) all count significantly against Health/Welfare score.

Medical, hygiene, and recreation facilities help improve health & welfare levels.
SUPERVISE AIRMEN

An expeditionary airbase is built up to support approximately 1100 Airmen for each fighter squadron-equivalent flying unit.

The lives and well-being of these Airmen are the responsibility of the airbase command staff.

Simulated Airmen should be treated like real people -- care for basic needs, supervise work, and they will accomplish the mission.

The EAX exercise: familiarize students with expeditionary airbases and practice LEADERSHIP and TEAMWORK.
Airmen can build base facilities, upgrade structures, or drive vehicles.
SUPERVISE AIRMEN

Keep an eye on Stamina levels before Airmen get sick or injured (and not available for duty!)

Send Airmen to rest (need Billeting) before Stamina level drops below 75%
Mission Readiness is one of three evaluation areas for air base command.

Mission Readiness is measured by actual completion dates of force modules against tasked completion milestones.

Late completion of force modules loses mission points while early completion of force modules earns bonus points.

Sorties flown before scenario end also earn Mission Readiness points (more is better).
The ultimate mission of the expeditionary airbase is to develop and sustain the capability to generate operational airpower sorties.

The Task Summary for each force module outlines the minimum essential requirements that must be accomplished quickly before moving to the next force module milestone.

Once all force modules are completed, the base will focus on Sortie Generation.

Each task requires **TEAMWORK** between all groups!
DEVELOP BASE

Task Summary
- Current Phase: Runway Prep
- Next Phase: Open Air Base

- Unloading Area Paint (Unloading Area Upgrade)
- Airfield Paint (Runway Upgrade)
- Airfield Lights (Runway Upgrade)
- Arrester Barrier (Runway Upgrade)
- Mobile Control Tower (Runway Upgrade)

Select an Upgrade:
- Electrical Systems Specialist
- Move
- Build
- Upgrade

Unloading Area Paint (No Specialty: 99% Eff)

Status: Functional
Upgrades Built:

Runway Upgrades
Day 1 15:57 Thwarted an enemy attack

Heavy Construction Vehicle
- Move
- Debris

Repair Debris (Alert Area)
Repair Debris (Fueling Area)
Repair Debris (Runway Area)
Repair Debris (Runway Area)
Repair Debris (Unloading Area)
DEVELOP BASE

Build
- ROWPU (water)
- Billeting (one tent)
Upgrade
- Vehicle Parking

The Task Summary only lists things you MUST do; some optional tasks will help preserve your force and improve your performance rating.
Expenditure of Resources is one of three evaluation areas for air base command.

Numerous resource areas are measured for scoring.

Resource Expenditures are measured by tasking of cargo flights and fuel convoys.

Maintaining constant base power and lifting in an economical number of teams helps maximize score.

Penalties are assessed for overuse of large airlifters, power outages, and too many teams.
Every build or upgrade expends resources—maximize efficiency and economy

During the initial Runway Prep phase airlifters can’t land yet to bring in more Personnel or Construction Supplies

Maintain sufficient resources to complete the Task Summary then quickly move to the next force module!
When tasking airlifters, avoid using C-5s unless absolutely necessary. Don’t bring in an excessive number of work teams (36 or less is ideal)
MISSION ACCOMPLISHED
EAS

Expeditionary Airbase Simulation