



Army Game Studio

Serious Games Development

GameTech
29 March 2010





Army Game Studio

Located at the US Army Aviation and Missile Command's Software Engineering Directorate, Redstone Arsenal, AL



Software Engineering Directorate

- 320 DA Civilians
- 1500 Support Contractors
- 500,000 sq. ft. of Engineering Workspace
- 42 Engineering Laboratories
- 3 Large High Bays

Army Game Studio Resources

- 16 DA Civilians
- 150 Support Contractors
- 4 Laboratories
- Motion Capture and Sound Studio
- Hardware Design, Development and Production Team
- Marketing, Community, Database and Web Teams
- Software Team (Unreal 2.5 & 3, VBS2)
- High Bay
- Training and VTC Facilities

Contracting

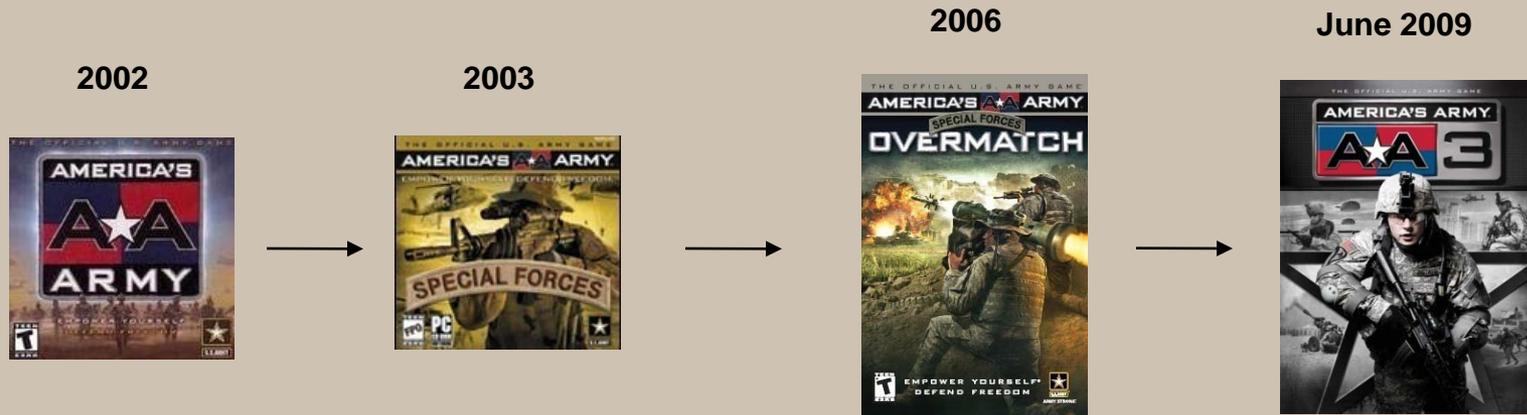
- AMCOM Express Task Order Contract
 - Over 225 Separate Subcontract Companies
- ITEC4 – America's Army Marketing / Network Infrastructure



ARMY STRONG

- Place Soldiering Front and Center in Young Male Popular Culture
- Provide Army a Strategic Marketing Advantage
- Prepare the Male Market for Traditional Marketing Efforts
- Create Foundation for Spin-offs to Event Marketing and other Mission Support Activities

America's Army is an online PC video game distributed for free at www.americasarmy.com. America's Army is continually updated with new content and features. New releases occur every 3 to 4 months, with 36 public versions launched since initial release in 2002



- Most Realistic Game Representation on Soldiering
- Strikes a Balance between Fun and Progression through Key Aspects of the Soldier Lifecycle Experience
- Players Begin Game Play by Completing Basic Combat Training and Advanced Individual Training
- Online Game Play is Conducted in a Force-on-Force Manner
- Two Opposing Teams of up to Sixteen Players are Charged with Achieving Mission Objectives
- Players Always Assume the Role of American Soldiers



Game Statistics

America's Army's (AA) Places Soldiering Front and Center in Youth Popular Culture

- In Terms of Player Population Size, *America's Army* Is Consistently Ranked Among the Top-10 Online Action Games Played World-Wide.
 - As A Result, 28% of Pre-Prospects & 20% of Prospects Report Playing AA.
 - These Players Are 30% More Likely than Other Young Males To Include Military Service in their Goals or Interests.
-

Registered Users:	11 million +
Total Hours Played Since 4 July 02:	240 million +
Total Rounds Played:	4,495,728,481 (AA2) / 53,096,394 (AA3)
Downloads at No Cost to the Army:	40 million +
Press Coverage:	5,000+ Stories – 97% Positive
Active Fan, Team & Tournament Sites:	500+
Unique Daily Visits to the Game & Website:	100,000 plus



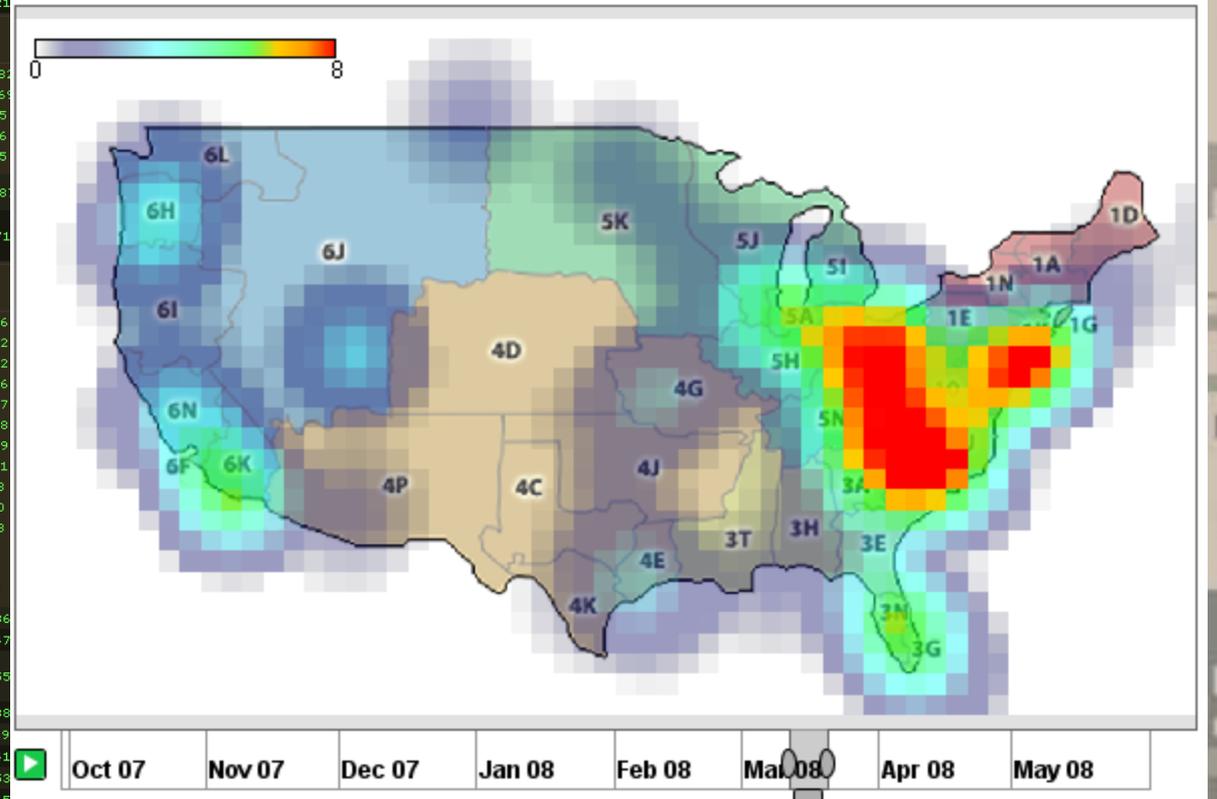
ARMY STRONG

Jump to date: Daily Aggregate Totals

Current Stats	01-20-10	01-19-10	01-18-10	01-17-10	01-16-10
AITrainingCompleted	2,990	2,835	2,907	3,974	3,546
BCTTrainingCompleted	7,772	8,150	8,364	11,107	9,921
BCTTrainingCompletedbyMission					
BCTTrainingPassedbyMission					
Weapons Familiarization	2,100	2,330	2,299	3,057	2,682
Obstacle Course	1,233	1,286	1,336	1,775	1,561
Basic Rifle	770	768	785	1,045	915
MOUT	644	659	704	873	786
Life Saver	484	448	499	638	615
CoinsEarn (MPCoinsEarn + SPCoinsEarn)	9,913	9,821	11,028	13,073	11,688
MedalsEarn (MPMedalsEarn + SPMedalsEarn)	1,770	1,918	1,872	2,455	2,371
MedalsEarnByMap					
MedalsEarnbyMedal					
Basic Rifleman	468	487	504	614	596
BRM Sharpshooter	263	279	283	361	332
BRM Marksman	263	278	282	360	332
Expert Life Saver	256	273	266	356	366
Carbine	124	129	121	184	177
BRM Expert	102	124	111	137	138
Weapons Expert	102	106	107	141	139
Infantry Expert	61	82	68	96	101
Physical Fitness	60	71	71	105	88
Combat Infantryman	44	51	33	53	50
M249	23	33	17	41	43
M16	4	5	7	4	6
Army Commendation	-	-	2	1	-
M320	-	-	-	2	3
RegisteredPlayer	1,716	1,722	1,927	2,428	2,386
RegisteredSoldier	1,559	1,561	1,700	2,166	2,147
RibbonsEarn (MPRibbonsEarn + SPMedalsEarn)	1,044	1,095	1,266	1,537	1,355
Rounds	200,822	198,781	218,696	261,943	238,88
TotShotsFired	4,682,562	4,660,417	5,114,583	6,018,109	5,373,9
TotShotsHit	479,657	471,622	518,079	618,312	563,41
UniPlayer	7,425	7,453	7,748	8,690	8,353
UniSoldier	7,590	7,620	7,951	8,972	8,565
HoursPlayed	1,623	1,591	1,698	2,049	1,780

Zoom: [1w](#) [1m](#) [3m](#) [6m](#) [1y](#) [Max](#) Image Quality Image Size Range: 3/12/08 - 3/20/08
 Year: [2007](#) [2008](#)

Month: United States



[Oct 07](#) [Nov 07](#) [Dec 07](#) [Jan 08](#) [Feb 08](#) [Mar 08](#) [Apr 08](#) [May 08](#)

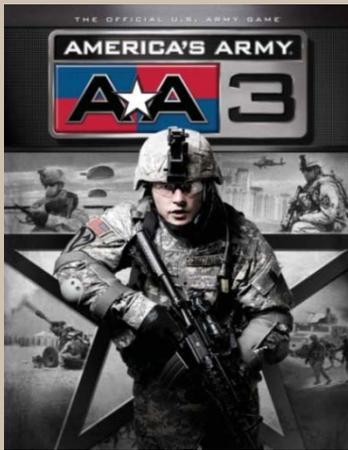
The America's Army Game is the Core of What has become a Social Network for Army Messaging to Young Americans and COIs



Community Forums



Facebook Page



Web Sites



YouTube Channel



Real Heroes Program



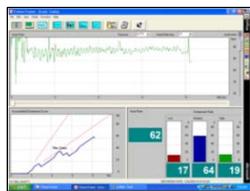
Graphic Novels



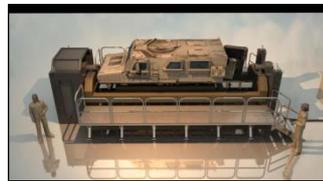
TRAINING



MIL Gaming Portal



NBC Recon Vehicle Trainer
NBC Fox Vehicle Trainer
FBCB2 Network Bridge
NBC/CBRN Dismounted Training



MRAP Integrated Crew Trainer
Ethics Training
TOW ITAS Basic Skills Trainer
CROWS Basic Skills Trainer
Night Vision Goggles
Ammunition Supply Point
EOD Talon
Every Soldier a Sensor (ES2)
Adaptive Thinking & Leadership
Live Fire Shoot Houses



Occupational
Therapy Driving
Simulators

America's Army Visualization Platform
VBS2
JIEDDO Simulation
HAXOR
XM25



SIMULATION

UAV/UGV Collaboration
Environment
Packbot
EOD Talon
FCS Mule
Raven
RMAX
JCATS/One SAF



Javelin Block I and
Precision Terminal Guidance



Army Football Simulator

IMI Development

- Air and Missile Defense
- Air Traffic Control
- CROWS
- Nuclear, Biological, and Chemical
- Army Aviation Planning
- Personnel Recovery



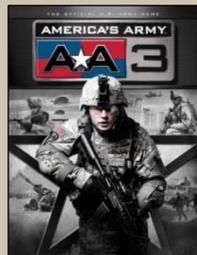
OUTREACH



Future Soldier
Training System



Army Experience Center



America's Army



Graphic Novels



Strength in
Action Tours



NASA Prototype Game



Technology Education Program Partners

- Activity Based, High-Tech, Real-World Applications In:
- Math & Science
 - Engineering
 - Computer Science & Technology
 - Art, Animation, & Graphic Design
 - Sports & Nutrition



Project Lead the Way:
Parachute Drop

EDUCATION



Discovery Channel Webinar



Future Soldier Trainer



Mobile, Arcade,
Xbox Games



AA Principles of Engineering

Goals:

- Use classroom lesson to convert concept to application
- Use *America's Army* activity to complement ballistics projects

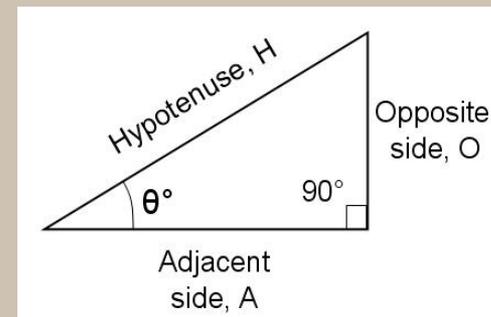


Outcomes:

- Improved math and science skills
- Provide concrete applications

Application: Kinematics - Motion and Vectors

- Speed
- Direction
- Distance
- Time
- Velocity
- Displacement
- Average Velocity
- Angle of Elevation





JROTC – Interactive Classroom Module

- Create scenarios with *America's Army* gaming platform to add another learning tool to the JROTC curriculum.
- “First Aid”-*The First Life Saving Steps*
Controlling Bleeding, CPR, Treating for fractures,
Treating for Shock
- “Foundations of JROTC”-*Rank and Structure, The Uniform,*
Signs of Success (projected 2010)
- “Leadership Strategies”-*Performance Indicators, Negotiating,*
Decision Making and Problem Solving, Leading
Meetings, (projected 2010)





Select Scenario | Create Scenario | **Victim Setup** | Save Scenario

Victims

- Vic1
- Vic2
- Vic8

Victim Appearance

- Caucasian Male
- African American Male
- Asian Male
- Latino Male
- Latino Female
- Caucasian Female

Injury Type

- Massive Bleeding
- Medium Bleeding
- Compound Fracture**
- Simple Fracture
- Third Degree Burn
- Second Degree Burn
- First Degree Burn

Respiration

- Breathing
- Not Breathing
- Choking

Heart Rate

BPM 70

Position

- Supine
- Seated

Return
Exit

Right Hand | Upper Arm | Head | Upper Arm | Left Hand
Chest
Lower Arm | Lower Arm
Upper Leg | Upper Leg
Lower Leg | Lower Leg
Right Foot | Left Foot

Clear Injuries

Previous | Next

Questions?

Marsha Berry

Marsha.Berry@us.army.mil

Backup Slides

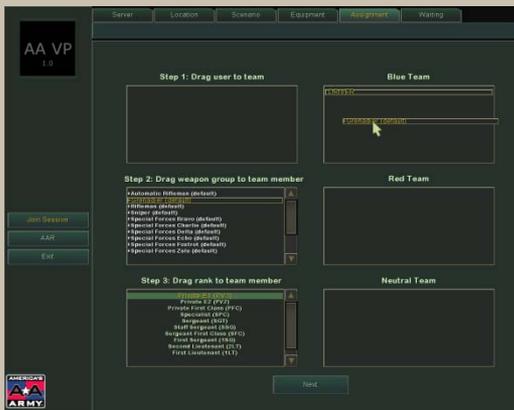


America's Army Visualization Platform

- Instructor Workstation & up to 31 Students
- Blue Force / Red Force / Neutral Force Characters
- 3D After Action Review
- Dynamic Scenario Editing
- Customizable Weapon Load-outs
- Drivable Vehicles
- Squad Based TTP Rehearsing

Development Platform

- Serves as Platform for Development Efforts.
- 60-70% solution from the start.
- Allows Rapid Prototyping
- Massive Reuse Library



NBC Recon Trainer

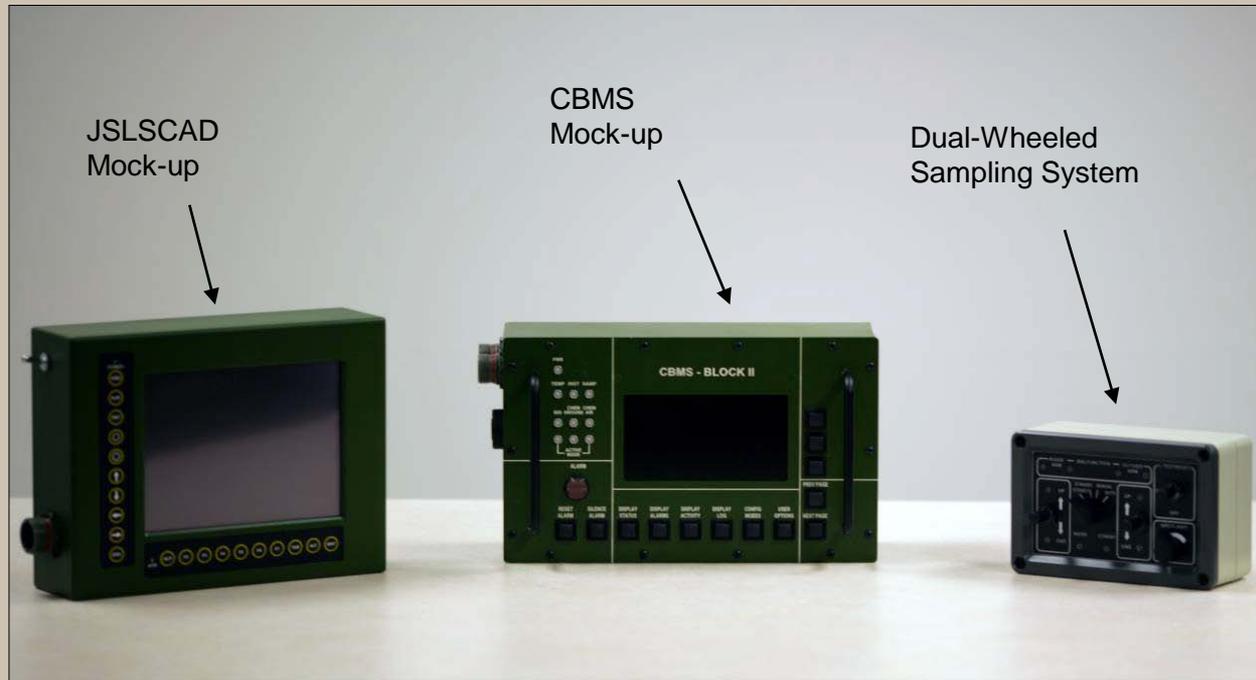
- ◆ **Description:** The NBC Recon Trainer is a low-cost, mid-fidelity deployable collective training device. The collective trainer can be configured to represent a Stryker NBCRV, or JNBCRS LAV, and can be expanded to include 6 vehicles simultaneously. Using CMLS-created or instructor-created scenarios, the system can present the crews with CBRN events that cannot be duplicated at the unit location using simulants due to various regulations.

- ◆ **System capabilities:**

- ◆ Stand-alone trainers allow individual sensor instruction, first used during NBCRV OPNET and JNBCRS MOTE
- ◆ Collective trainer challenges the driver, surveyor and vehicle commander as a crew
- ◆ Collective trainer can expand to accommodate 6 vehicles under the supervision of one instructor
- ◆ Instructor can inject faults or deploy agent on the fly
- ◆ FBCB2 / C2PC integrated for enhanced fidelity

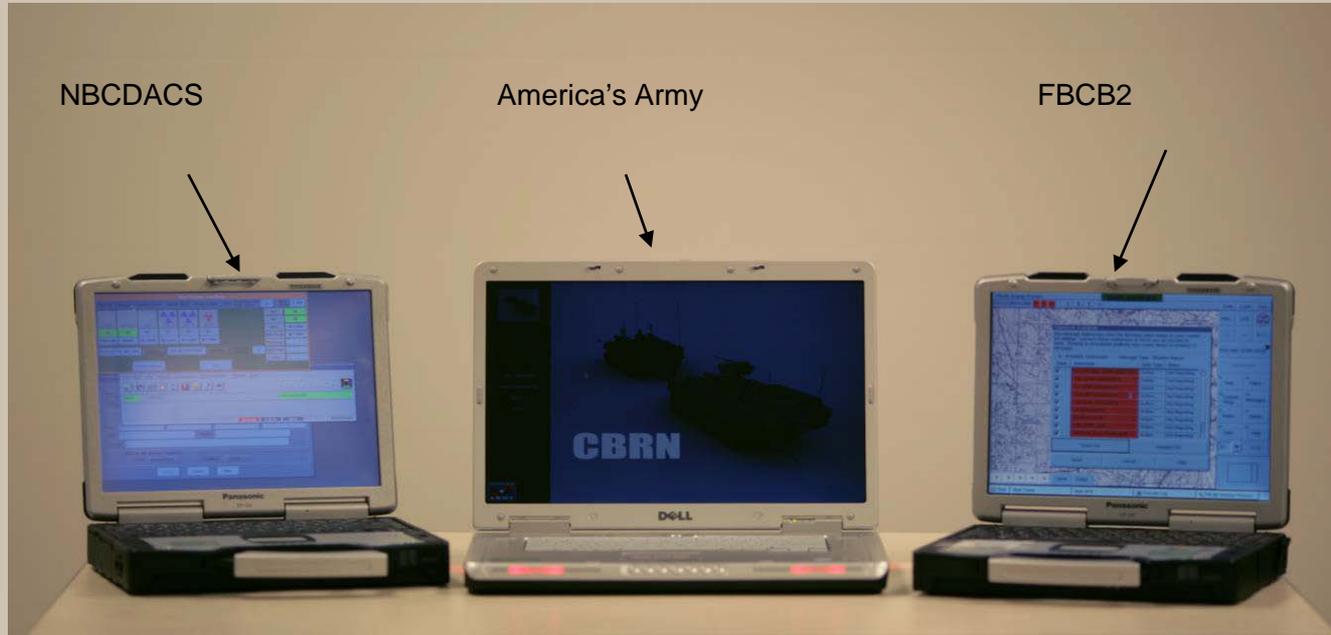


Surveyor Mockups

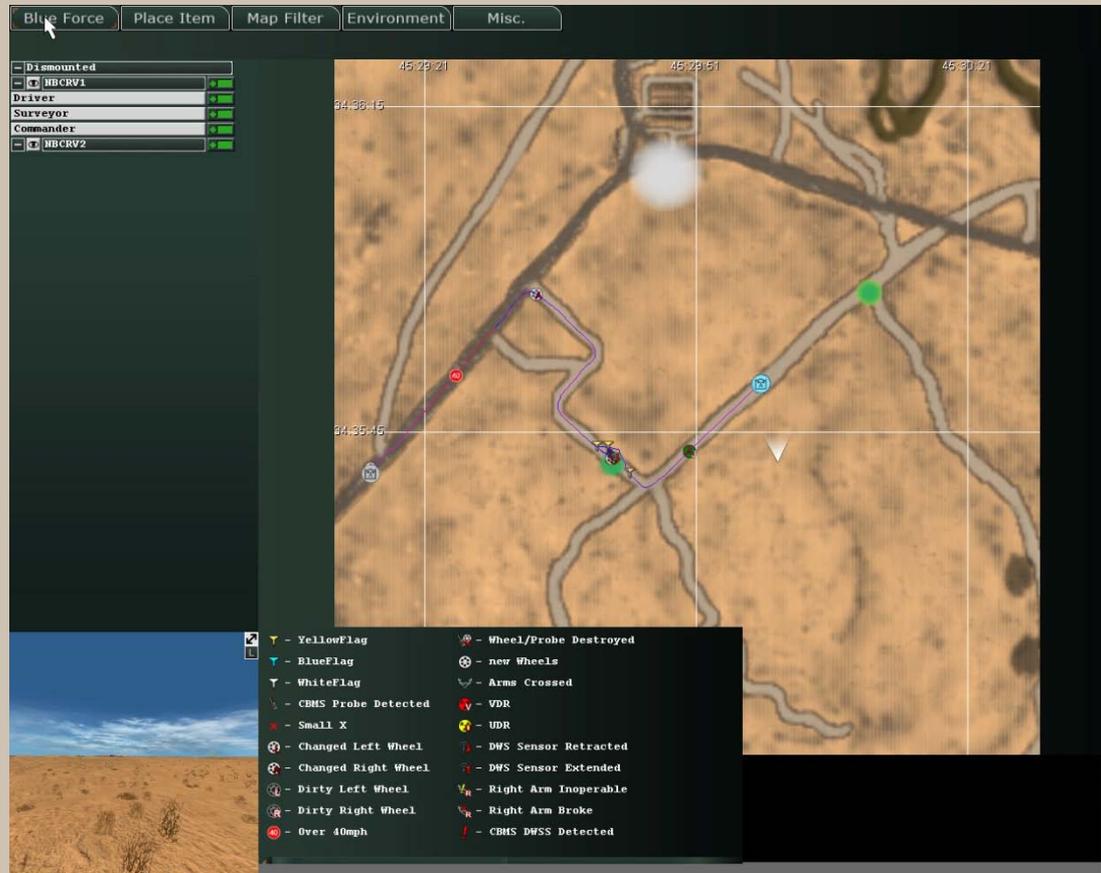


Hands-On Mockup Devices provide low-cost, realistic simulation of complex sensors. These simulated devices can be used for **stand-alone individual training**, and with the combined America's Army environment for **collective training**.

Integrated Tactical Systems NBCDACS, FBCB2



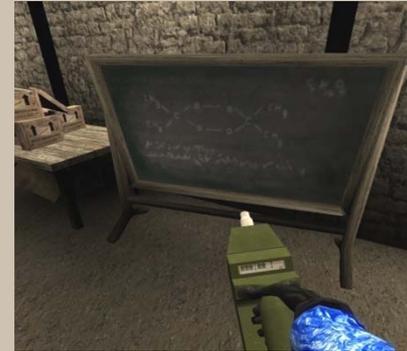
Some devices are actually fully function computer applications. These devices, such as the NBC analysis system and the FBCB2 navigation system, are interfaced to America's Army rather than simulated.



The Instructor can monitor the training environment and alter the scenario as it progresses.

PC-based NBC Dismount Detection Training using *America's Army*®

- Various Sensors
 - Chemical Agent Monitor (CAM)
 - Radiac (AN-VDR2)
 - MultiRAE
 - TruDefender
- Training Scenarios
 - Varying Environments
 - Real World Conditions
 - Simulated Contaminants
- Prototypes in UE2 and UE3



Chemical Agent Monitor

Radiac



MultiRAE



TruDefender



America's Army Based Basic Skills Trainers

- CROWS BST
 - America's Army software
 - Tactical or mock-up Control Grip, Switch Panel Unit & Display
- TOW Anti-Armor Leader Training
 - Multiple Vehicles and Commander
 - Existing TOW ITAS BSTs
- Software replicates complete CROWS and TOW ITAS tactical systems



America's Army Weapon System Simulations

- Javelin Weapon System Prototyping
 - Tactical Javelin Block I symbology and menus
 - Javelin Precision Terminal Guidance on Javelin BST
- Rapid Response Missile Simulation
 - Rapid Response Missile Fire Control System
 - Simulates route planning, sensor selection (fixed camera, UAV), missile guidance



VIRTUAL ARMY EXPERIENCE ALPHA



- 150' x 130' Footprint
- 3 Consumer Activation Trailers
- 4 GMV HMMWVs
- 2 CROWS HMMWVS
- 2 UH-60 Black Hawks
- AA Game LAN & Xbox 360®
- Electronic Measurement System
- Three Scenarios
 - Extraction
 - Humanitarian Rescue
 - Combat Mission
 - MILES

VIRTUAL ARMY EXPERIENCE

BRAVO



- 130' x 95'
- 2 Consumer Activation Trailers
- 2 HMMWVs, 1 UH-60 Black Hawk
- AA Game LAN & Xbox 360®
- Electronic Measurement System

CHARLIE



- 130' x 95'
- 1 Consumer Activation Trailer
- 2 HMMWVs, 1 UH-60 Black Hawk
- AA Game LAN & Xbox 360®
- Electronic Measurement System

VAE APACHE



- 30' x 45' Footprint
- **AH-64D Apache Longbow**
 - 1 Gunner Position
 - 1 Pilot Position
- Measurement System



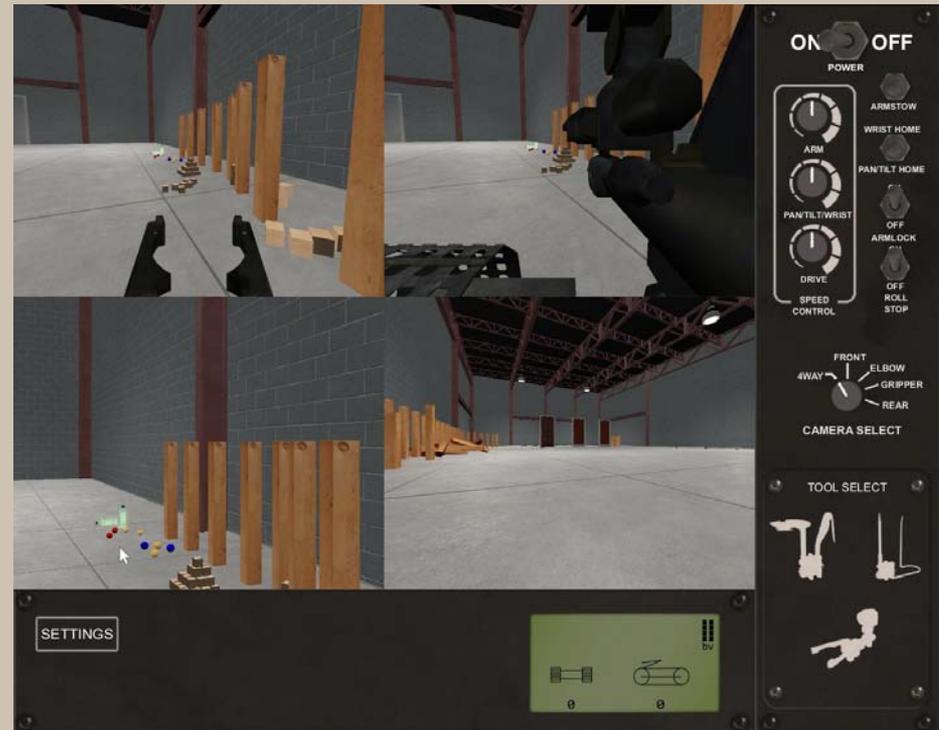
UAV / UGV

- Collaborative Environment

- Geo-specific environments
- UE2 based
- Vehicles :
 - MULE
 - Packbot
 - SWORDS
 - Gladiator
 - Raven
 - RMAX

- Standalone Trainers

- EOD Talon
- Gladiator
- MULE
- Packbot



Moral Combat

- Ethical / Moral Dilemmas
- AAR gives player feedback on their decisions
- Built for Army Center of Excellence for the Professional Military Ethic, West Point



America's Army: Live Fire Virtual Targetry

- AA scenarios projected onto walls of live fire shoothouses
- Special cameras detect bullet hit friction on wall and send data to AA game engine
- AI, Instructor, and live soldiers are OPFOR characters

