



One Semi-Automated Force (SAF) Testbed Baseline (OTB)

14 April 2004



Outline

- **OTB Overview**
 - **OneSAF Background**
 - **Transition from OTB to OOS**
 - **Tools available in Version 2.0**
 - **Changes in Version 2.0**
- **Getting a copy of OTB**
- **Demonstration of OTB 2.0**

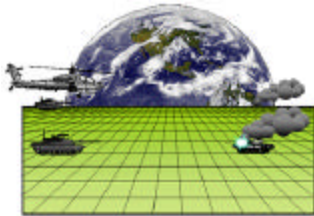
OneSAF Background

OneSAF consists of two separate program efforts:

OneSAF Testbed Baseline (OTB)

OneSAF Objective System (OOS)

OTB



- OTB is an interactive, high resolution, entity level simulation which represents combined arms tactical operations up to the battalion level
- Supports both HLA and DIS
- Based on the ModSAF baseline
- ModSAF officially retired as of April 2002

- *OOS is new development*
- *Composable, next generation CGF that can represent from the entity to the brigade level*
- *New core architecture*
- *Need based on cost savings through replacement of legacy simulations:*
BBS - OTB - Janus - CCTT/AVCATT SAF



Transition from OTB to OOS

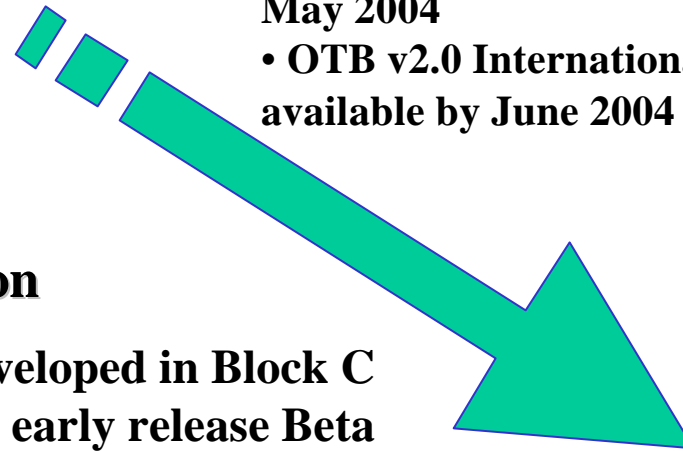
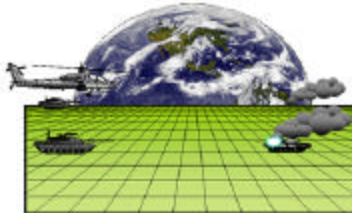
Interim SAF solution

- OTB will be maintained and supported by PEO STRI until OOS is available
- OTB v1.0 released in Jan 2001
- OTB v2.0 released in Oct 2003
- OF/FCS OTB v2.0 initial release anticipated May 2004
- OTB v2.0 International (ABCA & FMS) available by June 2004

Future SAF solution

- Currently being developed in Block C
- Block B available in early release Beta

OTB

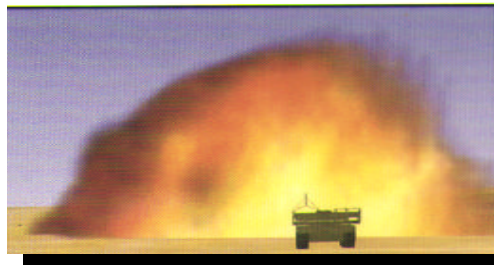


OneSAF Testbed Baseline



The OTB is an interactive, high resolution, entity level simulation which represents combined arms tactical operations up to the battalion level.

The OTB allows a single operator to furnish computer-generated opposing, flanking, supportive and subordinate forces in distributed simulations to meet the needs of the ACR, RDA and TEMO domains.





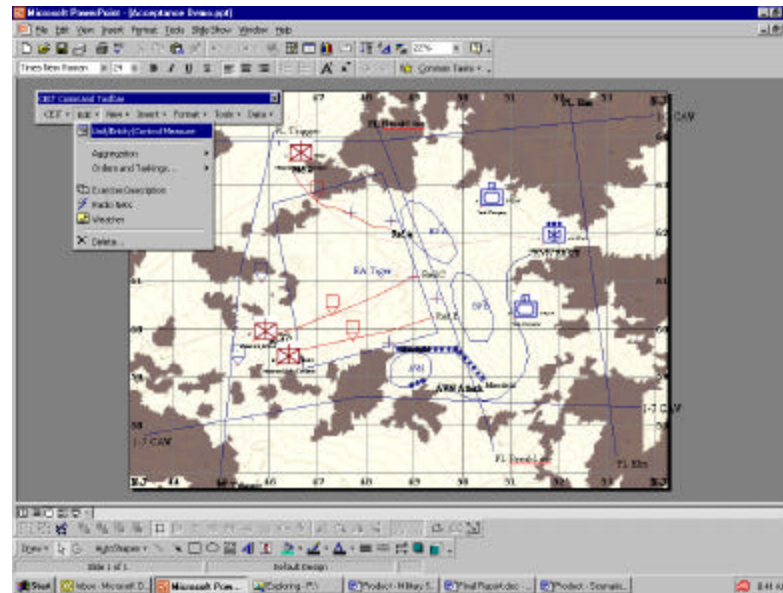
OneSAF Testbed Baseline Applications

- **OTB**
 - Provides Semi-Automated Forces Stations (SAFstations) and Semi-Automated Forces Simulation (SAFsim) capabilities at a single workstation.



OneSAF Testbed Baseline Applications (cont)

- **Military Scenario Development Environment (MSDE)**
 - Microsoft Powerpoint based application exercise planning tool



OneSAF Testbed Baseline Applications (cont)

- **Powerstripes**
 - Windows based after action review (AAR) system



OneSAF Testbed Baseline Applications (cont)

- *PC based Stealth*
 - *Three dimensional visualization systems are available to work with OTB, these are not provided with OTB 2.0 as GOTS*



OneSAF Testbed Baseline Applications (cont)

- **Semi-Automated Forces-Logger (OTB-Logger)**
 - Maintains a log of events from the network.
- **Blaster**
 - Generates lots of randomly placed entities to assist in evaluation of OTB's ability to handle network traffic. It typically runs on an isolated network with OTB in benchmark mode to measure performance without interfering with other exercise.





Changes in Version 2.0

- *Ability to integrate with the Eagle model*
- *MPARS Tools (XML parser, loading MSDE scenarios)*
- *High Level Architecture (HLA) Framework*
- *Target Location Error (TLE) Model*
- *Individual Combatant/Multi Elevation Fixes (IC/MES Fixes)*
- *Mobility model based on the NATO Reference Mobility Model (NRMM)*
- *Entity Situational Awareness Model (perceived truth vs. ground truth)*
- *DIS 2.0.5 & 2.0.6 support*
- *DISAF 9.4 Enhancements & Fixes*



Changes in Version 2.0 (cont)

- *MWTB Enhancements*
 - *Tabbed editors*
 - *Route Planning Tool*
 - *Find Tool*
 - *Acoustic Sensors*
 - *Elevated Mast Model*
- *C4I Interfaces*
 - *AFATDS via the WARSIM C4I adapter*
 - *TACFIRE (from AVCATT)*
 - *FBCB2 (from Iowa National Guard Distance Learning)*
- *Aviation Model Enhancements (AVCATT, Comanche Enhancements)*
 - **Low Fidelity Sling Load Capability**
 - **Aircraft Survivability Equipment (Flares & Chaff, Radar and Radio Jamming Models)**
 - **Manual Laser Designation**



Changes in Version 2.0 (cont)

- **UACEP**
 - **New Application: MES DT Server**
 - **User Alert Messaging**
 - **Enhancements for Remote Tasking**
- **LSI Vehicle configurations**
- **Slovak Enhancements (modeling damage with attachments, air defense fixes)**
- **Australia CTDB Fixes (concealed route maps & simulating entity off the terrain database)**



Getting a copy of OTB

- Please go to <http://www.onesaf.org/publicotb agreementv2.html> to download the OTB 2.0 Distribution Agreement.
- There is no automatic upgrade from Version 1.0 to 2.0.
- Your distribution agreements for Version 1.0 are still in effect and can be used through your completion date.
- After completing the online form, your OTB 2.0 package will be prepared, but will not be shipped until you have faxed a hard copy with appropriate signatures. The original should still be sent by regular mail to complete our records, but media will be sent upon a successful fax.
- If you have questions please contact either Dennis Bray (dbray@ideorlando.org) or Eric Root (Eric.D.Root@saic.com)



Demonstration of OTB V2.0



OTB FY04 Focus Areas

Baseline Development/Management

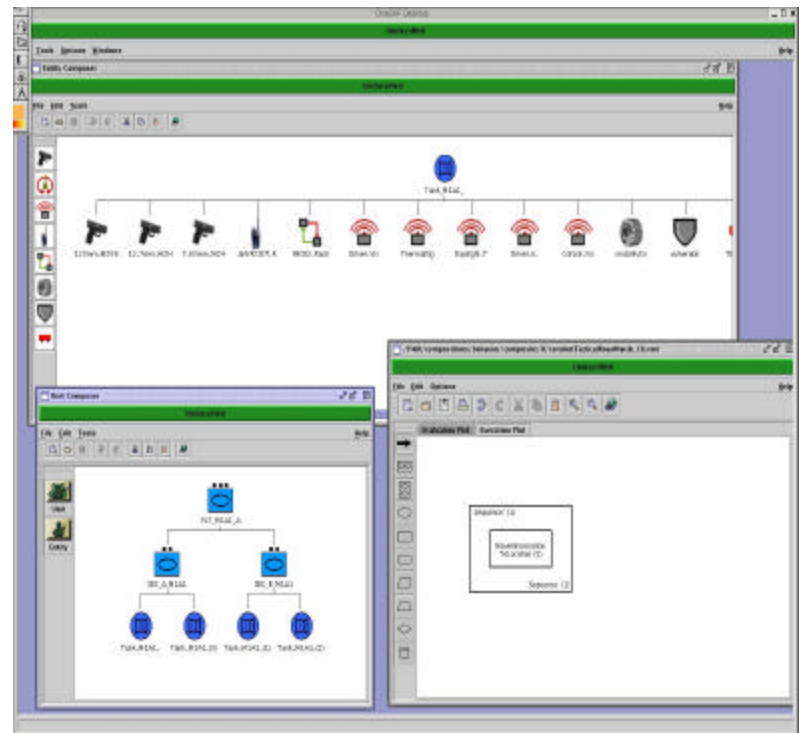
- **Create a unified OTB baseline**
- **Unified OTB baseline will include:**
 - **OTB 2.0 baseline**
 - **FY03 OTB development for the Modeling Architecture for Technology Research and EXperimentation (MATREX)**
 - **OTB enhancements from the Ft. Knox Unit of Action Battle Lab (UAMBL)**
 - **Environmental databases with large numbers of Multi-Elevation Structures (MES) (hundreds of thousands of buildings)**
 - **Enhancements to Individual Combatant code for better modeling of operations in urban environments**
 - **Logistics**
 - **DIS support for the Logistics re-supply enhancements that were done for Ft. Lee in FY03**
- **FCS vehicle representations will be available in a classified baseline**
- **Problem Trouble Report corrections**



OTB FY04 Focus Areas (cont.)

OOS Tools Integration

- Integrate the OOS entity and unit composers into OTB and incorporate all entities/units OTB currently supports as well as the new FCS systems
- Work done will be done so that it can be reused in OOS
- Can only be reused when OOS creates the full range of OTB physical models in OOS





Backup



FY03 Logistics enhancements

- **Modifiable time delay**
- **Enhanced refueling calculation**
- **Start re-supply message**
- **Unit Level Convoy**
- **Medical workload generator**
- **Casualty tracking & injury assignment**
- **Vehicle Evacuation Behaviors**
- **Ground Vehicle Evacuation Behaviors**
- **Air Vehicle Evacuation Behaviors**
- **Unit Evacuation Behaviors**
- **Ground Unit Evacuation Behaviors**
- **Air Unit Evacuation Behaviors**