

# **High-Level Architecture (HLA) Transition Report**

## **March 1998**

### **INTRODUCTION**

This report is a product of the High Level Architecture (HLA) Transition Issues Team, a caucus of representatives from the DoD Component (modeling and simulation) M&S Management Offices and the Defense Modeling and Simulation Office (DMSO). This team operates in support of the DoD Executive Council for Modeling and Simulation (EXCIMS). The team began meeting soon after the Department's HLA policy was announced in USD(A&T) Memorandum "DoD High Level Architecture (HLA) for Simulations," September 10, 1996 (see Attachment 1). The team's goal has been to foster a coordinated, common-sense implementation of HLA policy across the DoD. It will continue to function in this role throughout the HLA transition period (notionally until October 1, 2000).

This HLA Transition Report provides an overview of the rationale for HLA use, describes progress to date in the Department's HLA transition, and recommends the adoption of certain definitions for the implementation of DoD HLA policy. It also provides lists of DoD simulations committed to HLA compliance, those the team recommends the USD(A&T) waive from HLA compliance, and those that will be retired from use, and hence will not transition to the HLA.

### **RATIONALE FOR HLA USE**

To establish an informed perspective for dealing with HLA policy implementation issues, the team first reviewed the rationale for DoD's mandate of the HLA as "the standard technical architecture for all DoD simulations."

Advanced simulation can provide a powerful tool to help maintain readiness, plan operational missions, make optimal investment decisions, analyze force structure alternatives, and achieve dramatic acquisition improvements. Simulations (a general term including both pure-software, or "constructive," simulations and human-in-the-loop, or "virtual," simulators) are abstractions of the real world. Different user needs dictate different abstractions: different entities, attributes and interactions must be represented, at different levels of resolution and fidelity. These representations will, of necessity, be implemented in different computing environments and run on hardware platforms that range from personal computers to massively-parallel, high performance computers.

The DoD will thus need many different simulations. However, if the Department is to use simulations cost-effectively, it needs the flexibility to reuse simulations to the maximum possible extent, building new representations only when existing simulations cannot provide the needed capabilities. To get the greatest return on investment for the simulations it does build and

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14. ABSTRACT This report is a product of the High Level Architecture (HLA) Transition Issues Team, a caucus of representatives from the DoD Component (modeling and simulation) M&S Management Offices and the Defense Modeling and Simulation Office (DMSO). This team operates in support of the DoD Executive Council for Modeling and Simulation (EXCIMS). The team began meeting soon after the Department's HLA policy was announced in USD(A&T) Memorandum "DoD High Level Architecture (HLA) for Simulations," September 10, 1996 (see Attachment 1). The team's goal has been to foster a coordinated, common-sense implementation of HLA policy across the DoD. It will continue to function in this role throughout the HLA transition period (notionally until October 1, 2000). This HLA Transition Report provides an overview of the rationale for HLA use, describes progress to date in the Department's HLA transition, and recommends the adoption of certain definitions for the implementation of DoD HLA policy. It also provides lists of DoD simulations committed to HLA compliance, those the team recommends the USD(A&T) waive from HLA compliance, and those that will be retired from use, and hence will not transition to the HLA.
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maintain, DoD must be able to team these representations together in different combinations (“federations”) to satisfy a diverse and ever-evolving set of user needs.

Simulations must also be able to interoperate with various real-world, or “live,” systems, such as command and control systems, weapon systems on instrumented ranges, and weapon system or sensor components on test benches. This live system interoperability is necessary to:

- facilitate test and evaluation of the live systems;
- deliver training, course of action analysis tools, and mission rehearsal capabilities to humans operating those live systems; and
- allow authoritative representation of the system and its operator(s) in a simulation exercise being conducted for other purposes.

Thus, for reasons of capability, timeliness and cost-effectiveness, DoD needs a flexible, composable approach to constructing synthetic environments, bringing together simulations and live players in various combinations, as user needs dictate. This means that interoperability must be “built-in” to the maximum possible extent. This need was reflected in the 1995 Chairman’s Program Assessment, which noted that the *“lack of M&S interoperability is our largest shortfall”* and in FY 1997 Defense Planning Guidance to *“restructure M&S activities for interoperability and reuse.”*

HLA compliance satisfies the most important condition for interoperability and reuse: a common, efficient technical means to join simulations together in federations, optionally including live players, and exchange information in a coherent manner. However, the HLA is not an interoperability “magic wand,” that is, it will not automatically make every simulation suitable for federating with every other simulation nor guarantee a valid, meaningful exchange of information across the federation. Prudent, common sense planning is still required, but the HLA does provide the critical technical foundation for the interoperability of simulations among themselves, and with live systems. For this reason, the HLA’s broad adoption across DoD is essential.

HLA compliance delivers new functional capabilities and allows different organizations to produce/maintain a diverse set of products (e.g., simulations, live system interfaces, utilities, runtime infrastructures) which can be wisely used together in different combinations as user needs dictate. This yields reuse of individual products and allows simulations to bring in new capabilities without having to build them. This in turn equates to reductions in time, expense, and risk that justify the modest near-term costs of transitioning legacy systems to the HLA.

## **HLA TRANSITION PROGRESS TO DATE**

The Department is only in the early stages of its multi-year transition to the High Level Architecture. However, comprehensive transition support capabilities have already been put in

place, the vast majority of the Department's simulations are committed to HLA compliance, and many HLA implementations are underway.

### **HLA Transition Support**

Responsive, professional evolution of the HLA is necessary to ensure any emergent issues (e.g., needed new capabilities) are addressed. As recommended by the HLA Transition Issues Team and approved by the DoD Executive Council for Modeling and Simulation (EXCIMS), the Architecture Management Group (AMG) has added additional members who are embarked on HLA transition. The AMG will continue as DoD's means to manage HLA evolution and support corporate decisions regarding M&S standards. An orderly issue identification and resolution process, technical support, and experimentation are in place to ensure an optimal, disciplined evolution. The AMG has scheduled HLA updates on a six-month cycle; HLA version 1.3 was approved in February 1998.

A comprehensive set of HLA supporting software is available to potential HLA users. The HLA is an architecture, not software. However, to facilitate cost-effective implementation of the HLA, DMSO has developed an initial suite of supporting software and is distributing it in the public domain. This software suite includes HLA runtime infrastructure software, object model development tools, an object model data dictionary system and an object model library. Full documentation, test applications and technical assistance are being provided. Over 1,000 copies of this software have been distributed through the end of February 1998. To foster the development of commercial software, all HLA specifications have been made public via the Internet, and HLA-based tools and development environments are already emerging in the commercial marketplace.

A comprehensive HLA education program is underway and evolving in response to user needs. Focused HLA introductory/issue courses are offered regionally, once or twice a month. A hands-on HLA implementation practicum is offered biweekly in the Washington area. Both of these courses are free of charge, with enrollment via the DMSO Home Page. Through the end of February 1998, 28 courses have been conducted, with 779 students in attendance. A full HLA Technical Library and briefings are available on the Internet, and an HLA Help Desk has been established to assist HLA implementors.

HLA outreach is being accomplished by bilateral exchanges with our allies and robust participation (briefings, tutorials, panel discussions, professional papers, and demonstrations) in major M&S forums outside DoD. These include the:

- Military Operations Research Society (MORS);
- Simulation Interoperability Standards Organization (SISO);
- Institute of Electrical and Electronic Engineers (IEEE);
- Society for Computer Simulation (SCS);
- International Test and Evaluation Association (ITEA);

- International Training and Education Conferences (ITEC);
- Object Management Group (OMG);
- National Defense Industrial Association (NDIA) conferences such as the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC); and
- North Atlantic Treaty Organization (NATO) bodies involved with simulation.

After a thorough examination of the HLA, SISO and IEEE have begun the process of establishing the HLA as an IEEE standard and NATO's Steering Group on M&S has recommended the HLA as a NATO standard.

These encouraging developments mean that DoD will be able to enjoy the additional benefits of greater intellectual input to HLA evolution and software development, a broader industrial base, and more reuse candidates, including more commercial-off-the-shelf (COTS) products. International cooperation will also be facilitated in defense matters (e.g., training with allies, course of action assessment), civil matters (e.g., air traffic control) and other application areas such as manufacturing and hazardous operations.

An HLA compliance testing capability has been in place since October 1997. It provides a straightforward means to certify the conformance of simulations with the HLA, over the Internet (or Secret IP Router Network). Well-documented and supported by semi-automated test management, it provides a natural and simple process for simulations that have complied with the HLA specifications. Of the many simulations that use HLA, fewer than 10 have undergone formal compliance testing, but that number will increase significantly over the next six months.

## **DEFINITIONS TO GUIDE HLA POLICY IMPLEMENTATION**

The DoD HLA policy, issued in September 1996, called for the DoD Components to list their HLA-compliance intentions for each simulation they own or sponsor. The HLA Transition Issues Team has worked together to craft a coherent, common sense implementation of the policy. The team developed working categories of various simulation types in order to facilitate a careful examination of each. An issue which arose early in the reporting process, and which resurfaced frequently, was the matter of definitions. The team recognized the need for common understanding among the DoD Components of the meaning of the terms and phrases used in the HLA policy memorandum. This problem encompassed such basic matters as what software applications are covered by the policy. After several iterations and practical application experience, the HLA Transition Issues Team arrived at a set of expanded working definitions, provided below. USD(A&T) approval is requested for these seven working definitions to guide the implementation of the DoD HLA policy.

## “DoD Simulations”

The USD (A&T) memorandum on HLA policy states: “...Under the authority of reference (a), and as prescribed by reference (b), I designate the High Level Architecture as the standard technical architecture for all **DoD simulations**.”

In order to promote a clearer understanding of the scope of this requirement, it is necessary to understand the difference between model and simulation. A model is “a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process;” whereas, a simulation is “a method for implementing a model over time.” Models do not interoperate in parallel in a time-coordinated manner (except as internal components of simulations). HLA compliance is required of simulations, but not models. This means, for example, that spreadsheets and linear programs are not considered simulations and would not need to be HLA compliant. Such models may still benefit from HLA use, but, they are not required to comply as a matter of policy. It must be noted that many simulations use the term model in their names; the above functional definitions, not the name, govern whether they are required to be HLA-compliant.

In this light then, “DoD simulations” means the executing software that implements, over time, models representing the attributes of one or more entities. The simulation application represents or “simulates” real-world phenomena for the purpose of training, analysis, acquisition support, or other experimentation. Examples include manned vehicle (virtual) simulators, computer generated forces, integrated simulations (e.g. Air Combat Environment Test and Evaluation Facility (ACETEF), Theater Air Command and Control Simulation Facility (TACCSF)), environment simulators, closed-form simulations, and interfaces to ranges, command, control, communications, computers and intelligence (C4I) systems and other live players.

Furthermore, the following classes of applications should not be considered “simulations” in the context of the DoD policy. They are therefore exempt from the HLA-compliance mandate and need not be reported. Applications within these categories may still enjoy the benefits of HLA-compliance when deemed appropriate by their owners and/or sponsors, but the Department will not so insist.

1. The internal components of a simulation, even if that simulation is employed in a distributed manner (e.g., several instances of a single application interoperating over a wide-area network only with each other). Stated another way, any simulation need only be made externally, not internally, HLA-compliant. A simulation must use the HLA to interoperate with other simulations and live systems, but not with itself. Again, it is recognized that there may be opportunities to use the HLA internal to simulations, but this is not required as a matter of policy.
2. Part Task Trainers (PTT). A PTT is a training device having both of the following characteristics:

- a. Used to train humans in some portion of the tasks they are expected to perform in their occupational specialty of system operator or maintainer (e.g., pilot, gunner, mechanic, fire fighter, communicator), but does not provide a complete-enough representation of a system's functions, or the ability to interact with other persons normally present in the same crew compartment, as would be necessary to allow the trainees to simulate employment of the system in one or more of its primary missions; and
- b. Does not require input from, nor output to, other systems (e.g., other organizations/units; weapon systems; sensors; command and control systems) to accomplish the training.

Examples of simulations in this category may include certain emergency procedure trainers, air refueling trainers, fuel system management trainers, hydraulic system operation trainers, instrument flying trainers, and target/threat identification trainers. *(Note: Simulators which can be interconnected with other simulators or live systems to provide team/crew training, where interaction among the simulators/systems can enhance the skills of each team/crew member, are not considered Part Task Trainers.)* Some PTTs may benefit from HLA use, but they are not required to comply as a matter of policy.

3. Stimulators used only for production line quality control or diagnostic testing. These stimulators are used only to test subsystems or some portion of the internal interfaces of a system. They do not provide a complete-enough representation of functions as to allow them to simulate employment of the system in one or more of its primary uses. Examples of stimulators in this category include launcher interface stimulators, missile echo units, avionics diagnostic test suites, and weapon control system interface stimulators.

### **“Simulation Projects and Programs”**

The policy states: “DoD Components shall review **all of their simulation projects and programs** by the second quarter fiscal year (FY) 1997 in order to establish plans for near-term compliance with the HLA.”

The team agreed that “all of their simulation projects and programs” includes those:

- Programs developing simulations for specific purposes, e.g. training:
- Programs using simulations to support other objectives such as acquisition of weapons systems, and analysis of doctrine, tactics, and operational plans; and
- Centers (e.g., TACCSF, ACETEF) providing integrated simulation support to other programs.

### “Development or Modification”

The policy states: “The Department shall cease further **development or modification** of all simulations which have not achieved, or are not in the process of achieving, HLA-compliance by the first day of FY 1999.”

This means that there will be no changes, modifications, or enhancements to the capability of the executing simulation software that represents real world phenomena. Changes required for continued operations, such as changes to accommodate a new operating system, are permitted, as are those changes which would bring HLA compliance.

### “Retire”

The policy states, in part: “...and shall **retire** any non-compliant simulations by the first day of FY 2001...”

The Team agreed that this means that the non-compliant simulation will not be used by any of the DoD Components after September 30, 2000.

### “Own or Sponsor”

The policy states: “...the DoD Components shall submit an initial report to the Defense Modeling and Simulation Office by June 30, 1997, which summarizes their HLA-compliance intentions for **each simulation the Component owns or sponsors**, organized into three categories...”

The fact that many simulations are developed or used in cross-Service/agency fashion often makes it difficult to discern the true owner or sponsor. This makes a collaborative effort like the HLA Transition Issues Team essential for sorting out appropriate responsibilities. A simulation owner is the organization that has primary funding and configuration management responsibility for the simulation, even if configuration management is delegated to another agency for execution. A simulation sponsor is an organization that provides funding (perhaps by paying license fees) towards the development or maintenance of a simulation whose evolution is primarily controlled outside that DOD Component. The reporting process should include delineation of participating/using Services, agencies, and organizations.

### “Certification of Compliance”

The policy states: “The DoD Components shall submit periodic updates to these initial reports as required to ensure their accuracy and completeness. DMSO **shall establish a mechanism to provide for formal certification of compliance** and shall provide me with periodic reports on the Department's progress towards compliance with the HLA.”

In cooperation with the Services, a common compliance process has been developed and is being administered by Modeling and Simulation Operational Support Activity under the guidance

of DMSO. This process is based on the HLA compliance checklist and supporting test procedures available on the DMSO Internet homepage (<http://www.dmsomil/>). Certification of HLA-compliance will be granted by DMSO following successful completion of the compliance testing process.

### **“Waiver Submittal”**

The policy states: “If a Component believes it is impractical for a simulation to comply with the HLA, or that HLA-compliance cannot be achieved in a timely manner, **it may submit a waiver request to the Director of Defense Research and Engineering**, the chair of the EXCIMS. In consultation with the EXCIMS and its Training, Analysis, and Acquisition Councils, I will then decide if an exception to the HLA-compliance requirement is warranted, and if so, the form of that exception.”

This means that all HLA-compliance waiver requests must be submitted through the M&S management office of the DoD Component that owns or sponsors the simulation, to the DDR&E’s Defense Modeling and Simulation Office. DMSO will then coordinate consideration of the waiver request across the DoD Components and administratively process a recommended disposition to the EXCIMS and USD(A&T).

## **HLA TRANSITION PLANS**

In accordance with the DoD’s HLA policy, the Components submitted their initial reports of their HLA compliance intentions to DMSO on June 30, 1997. Applying the above working definitions, the DoD Components then refined their simulation inventories and examined those requesting waiver from HLA compliance. A workshop was held to gain insight into the issues that should be considered in judging waiver requests. The Components requested additional information wherever necessary to clarify the facts surrounding a request. The team then held extensive discussions on the simulations at issue. The outcome of this process reflected a strong commitment to the HLA. This is shown in the three lists that follow: (1) simulations committed to HLA compliance, (2) simulations proposed for waivers from HLA compliance, and (3) those that will be retired from use, and hence will not transition to the HLA.

### **Simulations Committed to HLA Compliance**

Since all DoD simulations must become HLA compliant unless waived by USD(A&T), the first list, (see Attachment 2), while containing over 450 simulations, is provided for information only. Given the extensive use of simulation across DoD, the team concludes some simulations have probably been missed. If so, this does not change the requirement for such simulations to comply with the HLA; they must do so unless granted a waiver.

## **Simulations Recommended for Waiver from HLA Compliance**

The second list, of simulations, at Attachment 3, is recommended for long-term waiver from the HLA compliance mandate. This list requires a USD(A&T) decision. The extensions to the investment (“no can pay”) and use (“no can play”) deadlines of these simulations are indefinite. This is because for various reasons it is not reasonable to require HLA compliance for these simulations (although they may still enjoy the benefits of HLA-compliance should their owners/sponsors so decide). Continued investment beyond October 1, 1998, is permitted for these waived simulations. The list of approved waivers will be reviewed by the team (or other body tasked by the EXCIMS) on an annual basis to determine if changed circumstances may make a waiver no longer advisable. In that case, a waiver withdrawal recommendation will be forwarded to USD(A&T). It should also be noted that the waivers are for these specific simulations only, not their successors or others of similar design, function or purpose.

Any decision to waive a simulation from HLA compliance requires careful consideration. Each simulation on this list has been examined on its individual circumstances. In many cases a careful investigation is required to ascertain additional information required for an informed decision. The distinguishing characteristics of simulations on this list include, but are not limited to, one or more of the following:

- Simulations with a planned and programmed replacement which will not be available prior to the “no can play” date of October 1, 2000.
- Simulations of systems that are scheduled to be retired from the operational inventory by October 1, 2002.
- Parametric assessments in design simulations.
- Simulations whose decidedly infrequent projected use of only once or twice annually does not justify the cost of HLA-compliance.
- Simulations that are commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance.
- Simulations whose national security circumstances/risks preclude federation.
- Simulations whose only computational platforms are obsolete and for which source code is no longer available.
- Simulations of systems where the systems themselves are used exclusively for training and not intended to perform any other operational mission (e.g., training aircraft such as the T-45).

Each waiver decision requires appropriate investigation and discernment. The above characteristics are just a starting point for an examination of each simulation on its particular capabilities, potential utility, security constraints, relationship to other activities, progress in the development of a replacement, etc. These characteristics have evolved, and will continue to evolve, as we gain experience with more simulations and accomplish more HLA transitions. They

are provided here to offer insight into the factors used by the team in arriving at these waiver recommendations. They are not precise criteria and no assumptions should be made that a simulation having one of these characteristics should pursue a waiver or would automatically be granted a waiver if it is requested. Nor should it be expected that a replacement for one of these simulations would be waived.

Again, it is recognized that the owners, sponsors and developers of these simulations granted a waiver may subsequently see benefits in using the HLA, but with the granting of a waiver by USD(A&T), HLA-compliance for these simulations will not be required as a matter of policy.

### **Simulations to be Retired**

The third list of simulations are those that will be retired from use by October 1, 2000, and hence will not transition to the HLA. (See Attachment 4.)

### **FOLLOW-ON ACTIONS**

Upon receiving the USD(A&T) response to this report, the M&S management offices of the DoD Components shall be responsible for conveying waiver decisions to the appropriate organizations and personnel.

Upon receiving the USD(A&T) response, DMSO will post this report and the USD(A&T) response on the DMSO HLA Internet site (<http://hla.dmsomil>) to promote broad awareness across the Department of Defense.

In the fall of 1998 the HLA Transition Issues Team will forward another recommendation regarding those simulations which are committed to HLA compliance but whose circumstances warrant a time extension to achieve this.

#### **4 Attachments:**

1. USD(A&T) Memorandum "DoD High Level Architecture (HLA) for Simulations," September 10, 1996
2. Simulations Committed to HLA Compliance
3. Simulations to be Waived from HLA Compliance
4. Simulations to be Retired by October 1, 2000

## Simulations Committed to HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>
BMDO	7V10V	-
Air Force (shared funding with Jt Staff/Combatant Cnds)	AC-130U Weapon System Trainer	AC-130 WST
Air Force	A-10 Multi-task Trainer (AFRC Ownership)	A-10 MTT
Navy/Marine Corps	Advanced Amphibious Assault Vehicle Crew Station Simulator	AAAV CSS
Navy/Marine Corps	Advanced Ballistic Missile Engagement Model	ABMEM
Army	Advanced C3	AC3
Army	Advanced Digital Electronic Warfare Simulation	ADEWS
Army	Advanced Gunnery Training System	AGTS
Army	Advanced Multiple Object Acquisition System	AMOAS
Navy/Marine Corps	Advanced Power Projection Planning and Execution	APPEX
Army	Advanced Regional Exploratory System	ARES
Army	Advanced Simulation Center Army TACMS Simulation	ASCATS
Navy/Marine Corps	Advanced Tactical Electronic Warfare Environment Simulator	ATEWES
Army	Advanced Threat Infrared Countermeasures/Common Missile Warning System	ATIRCM/CMWS
Navy/Marine Corps	AEGIS Combat System Interface Simulator	ACSIS
Navy/Marine Corps	AEGIS Low Altitude Engagement Model	ALAEM
Navy/Marine Corps	AEGIS N Series Simulator	ANS
Navy/Marine Corps	AH-1N Weapon System Trainer	AH-1N WST
Navy/Marine Corps	AH-1W Aircrew Procedures Trainer	AH-1W APT
Navy/Marine Corps	AH-1W Weapon System Trainer	AH-1W WST
Army	AH-64 Flight Simulator	AH-64 FS
Air Force	Aimpoint Selection Algorithm	APS
Navy/Marine Corps	Air Combat Environment Test & Evaluation Facility, Patuxent River, MD	ACETEF
Air Force	Air Defense Network	ADNET
Air Force	Air Defense Simulation	ADSIM
Air Force	Air Force Electronic Warfare Evaluation Simulator	AFEWES
BMDO	Air Force Mission Support System	AFMSS
Air Force	Air Force Semi-Automated Forces	AFFSAF
Air Force	Air Traffic Control System	ATCS
Navy/Marine Corps	AN/APS-137 Radar Simulator	Radar Simulator
Navy/Marine Corps	AN/BSY-1 TT	BTT
Navy/Marine Corps	AN/SPY-1 RADAR Firm Track Simulation	FIRMTRACK
Navy/Marine Corps	AN/SQQ-89(V)-(T) On Board Trainer	89 OBT
Jt Staff/Combatant Cnds	Analysis of Mobility Platform	AMP

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Navy/Marine Corps	Analyst WorkBench	AWB
Army	Analytical Simulation Team	ASIM
Navy/Marine Corps	Applied Physics Laboratory --Multiple Battlefield Engagements and Reactions	APL-MBER
Navy/Marine Corps	Applied Physics Laboratory Standard Missile Simulation	APL SM SIMMs
Army	ARDEC DIS Lab Facility	ARDEC DIS Lab
Air Force	Attack Management Development Facility Baseline	AMDF
Air Force	Automated Threat Engagement System	ATES
Army	Advanced Threat Infrared Countermeasures/Common Missile Warning Simulation (ATIRCM / CMWS).Countermeasures/Common Missile Warning Simulation	ATIRCM/CMWS
Navy/Marine Corps	AV-8 Night Attack Weapons System Trainer	AV-8 NAWST
Navy/Marine Corps	AV-8 Radar Night Weapons System Trainer	AV-8 RNAWST
Navy/Marine Corps	AV-8B Operational Flight Trainer	AV-8B OFT
Navy/Marine Corps	AV-8B Weapons Systems Trainers	AV-8B WST
Army	AVENGER Testbed	AVENGER Testbed
Air Force	Avionics CNI Concepts Exploration Laboratory	ACE
Air Force	Avionics Collaborative Engineering Environment	CEE
Air Force	Avionics Test and Integration Complex	ATIC
Air Force	AWACS M&S Training System	AWACS AMS
Air Force	AWACS Simulator	(None)
Air Force	B-1 Weapon System Trainer (ANG)	B-1 WST
Air Force	B-1 Weapon System/ Maintenance Trainer	B-1 WST/MT
Air Force	B-2 Weapon System Trainer	B-2 WST
Air Force	B-52 Weapon System Trainer	B-52 WST
Army	BAT/P3I BAT STRIKE (DIS Version)	BAT/P3I BAT STRIKE
Navy/Marine Corps	Battle Force Tactical Training	BFTT Baseline I
Navy/Marine Corps	Battle Group Simulation	BGS
Navy/Marine Corps	Battle Group Simulation/Theater Air Defense Simulation	BGS/TADSIM
Army	Bradley-LINEBACKER Simulator	Bradley-LINEBACKER
Navy/Marine Corps	Bridge/Combat Information Center Trainer	B/CICT (20B6D)
Army	BRL-CAD Synthetic Wideband Imaging Spectrophotometer and Environmental Simulation	SWISS
Air Force	C-130 Multi-task Trainer (AFRC Ownership)	C-130 MTT
Navy/Marine Corps	C-130 Operational Flight Trainer	C-130 OFT
Air Force	C-130 Unit Level Trainer (AFRC Ownership)	C-130 ULT
Air Force	C-130E Adverse Weather Aerial Delivery System Weapon System Trainer	C-130 AWADS WST
Air Force	C-130E Weapon System Trainer	C-130E WST
Air Force	C-130H Weapon System Trainer	C-130H WST
Air Force	C-130H2/H3 Weapon System Trainer	C-130H2/H3 WST

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Air Force	C-141 Cockpit Procedures Trainer	C-141 CPT
Air Force	C-141 Operational Flight Trainer (ANG)	C-141 OFT
Air Force	C-17 Cockpit Systems Simulator	C-17 CSS
Air Force	C-17 Weapon System Trainer	C-17 WST
Air Force	C-5 Weapon System Trainer	C-5 WST
Navy/Marine Corps	Carry-On Combat System Trainer	COCST
Navy/Marine Corps	CH-46E Aircraft Procedures Trainer	CH-46E APT
Navy/Marine Corps	CH-46E Weapon System Trainer	CH-46E WST
Army	CH-47 Flight Simulator	CH-47 FS
Navy/Marine Corps	CH-53D Operational Flight Trainer	CH-53D OFT
Navy/Marine Corps	CH-53E Weapon System Trainer	CH-53E WST
Army	Chemical Biological Defense Simulation Suite	CBD Sim Suite
Army	Close Combat Tactical Trainer	CCTT
Army	Closed Loop Tracker Simulation	CTSIM
Air Force	Cloud Simulation Scene Model	CSSM
Air Force	Cobra Ball	-
Army	Comanche Player Station	CPS
Army	Comanche Portable Cockpit	CPC
Army	Combat Maneuver Training Center Brigade Operations	CMTC BDE OPS
Army	Combat Maneuver Training Center Instrumentation System	CMTC-IS
Navy/Marine Corps	Combat System Simulation System	CSSS
Navy/Marine Corps	Combat Vehicle Appended Trainer	CVAT
Army	Combined Arms and Support Task Force Evaluation Model	CASTFOREM
Navy/Marine Corps	Combined Arms Staff Trainer	CAST
Air Force	Command and Control Protect Simulation	-
Navy/Marine Corps	Command and Control TT	21B64
Air Force	Command and Control Warfare Analysis and Targeting Tool	CATT
Air Force	Command, Control Communication Systems Team Assessment Research Simulator	C3 STARS
DISA	Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance Model	C4ISR
BMDO	Commanders Analysis and Planning Simulation	CAPS
Navy/Marine Corps	Commanding Officer's/Officer of the Deck Simulated Tactical Display	COSTD
DSWA	Common Operational Modeling, Planning, and Simulation Strategy	COMPASS
Air Force	Communications Network ModelingTool	CNMT
DSWA	Consequence Analysis Tool Set	CATS
Air Force	Consolidated Air Mobility Planning System	CAMPS
Navy/Marine Corps	Consolidated Data Link Simulator	CDLS
BMDO	Cooperative Air and Missile Defense Exercise Network	CAMDEN

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Army	Core DIS Facility	CDF
Air Force	Crew Aiding/Information Warfare Analysis Laboratory	CIWAL
Army	Crew Station R&D Facility	CSRDF
Navy/Marine Corps	Cruise Missile Trajectory Generation Tool	CMTGT
Army	Data Collection and Analysis Tool	DCAT
NSA	Defensive Information Warfare Simulation	DIWS
Army	Detailed Electro-Optical Simulation	DESIM
Army	Development and Test Simulation	DTSIM
DIA	Digital Integrated Combat Evaluator	DICE
Army	Distributed Intelligent Agents for Logistics	DIAL
Army	Distributed Interactive Simulation of Weapons Location Radar	DISWLR
Air Force	Distributed Signals Intelligence Collection	DSICS
Air Force	Distributed Threat Engagement Simulation	DTES
Army	Durability Motion Base Simulation	DMBS
Army	Dynamic InfraRed Scene Projector	DIRSP
Navy/Marine Corps	E-2C Operational Flight Trainer	E-2C OFT
Navy/Marine Corps	E-2C Tactics Trainer	E-2C TT
Navy/Marine Corps	E-2C Weapon System Trainer	E-2C WST
Navy/Marine Corps	EA-6B Operational Flight Trainer	EA-6B OFT
Navy/Marine Corps	EA-6B Tactics Trainer	EA-6B TT
Navy/Marine Corps	EA-6B Weapons System Trainer (BACK SEAT ONLY) will work with cockpit section	EA-6B WST
Army	Eagle	-
Navy/Marine Corps	Electronic Combat Range	ECR
Navy/Marine Corps	Encounter	-
Navy/Marine Corps	Endgame	-
Air Force	Engineering Research Simulator	ERS (B-1 Sim)
Army	Enhanced Fiber Optic Guided Missile Stationary Simulator	EFOGM SS
Army	Enhanced Logistics Intratheater Support Tool	ELIST
Army	Extended Air Defense Simulation	EADSIM
BMDO	Extended Air Defense Test Bed	EADTB
Air Force	F-117 Weapon System Trainer	F-117 WST
Navy/Marine Corps	F-14A Mission Flight Trainer	F-14A Aircrew Trainers
Navy/Marine Corps	F-14A Mission Trainer	F-14A MT
Navy/Marine Corps	F-14A Operational Flight Trainer	F14A OFT
Navy/Marine Corps	F-14A Operational Flight Trainer (2F95A)	F-14A Aircrew Trainers
Navy/Marine Corps	F-14B Weapon System Trainer	F-14B WST
Navy/Marine Corps	F-14B/A Weapon System Trainer	F-14B/A Aircrew Trainers

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Navy/Marine Corps	F-14D Mission Flight Trainer	F-14D Aircrew Trainers
Navy/Marine Corps	F-14D Tactical Environment System	F-14D Aircrew Trainers
Navy/Marine Corps	F-14D Weapon System Trainer	F-14D Aircrew Trainers
Navy/Marine Corps	F-14D Weapon System Trainer	F-14D WST
Air Force	F-15 Full Mission Trainer	F-15 FMT
Air Force	F-15 Weapon System Trainer	F-15 WST
Air Force	F-16 Combat Engagement Trainer	F-16 CET
Air Force	F-16 Multi-task Trainer	F-16 MTT
Air Force	F-16 Weapon System Trainer	F-16 WST
Navy/Marine Corps	F-18 C/D E/F Operational Flight Trainer	F-18 C/D E/F OFT
Air Force	F-22 Full Mission Trainer	F-22 FMT
Air Force	F-22 Unit Training Device	F-22 UTD
Air Force	F-22 Weapons and Tactics Trainer	F-22 WTT
Army	Federation of Intelligence, Reconnaissance, Targeting and Operations Research Models	FIRESTORM (CSTAR)
Air Force	Fire Control Sensor Model	FCSM
Army	Fire Support Automated Test Suite	FSAT Suite
Army	Fire Support Automated Test System	FSATS
Army	Fire Support Combined Arms Tactical Trainer Phase I	FSCATT
Navy/Marine Corps	Fleet AAW Model for Comparison of Tactical Systems	FACTS
Navy/Marine Corps	Forward Observer Training System	FOTS (16C82)
Navy/Marine Corps	Generic ARM Six Degree-of-Freedom simulation	ARM
Air Force	Generic Link End to End Model	GLEEM
Navy/Marine Corps	Generic Navy Stimulator/simulator	GNSS
Air Force	GEOSpace	-
Army	Global Deployment Analysis System	GDAS
Navy/Marine Corps	Global Positioning System Monte Carlo Navigation Simulator	NAVSIM
Army	Ground Based Sensor - Distributed Interactive Simulation (DIS)	GBS-DIS
Air Force	H-53/-60 Aerial Gunner Scanner Simulator	H-53/60 AGSS
Air Force	Hardbody Handover	HBHO
Air Force	Hardbody Handover Test Bed	HBHO
Navy/Marine Corps	HARM QUE Six Degree-of-Freedom simulation	HARM
Air Force	High Dynamic, 6 Degree of Freedom HARM Flyout Model	Q6DOF
Army	Homestation Instrumentation System	HSI
Army	Hunter Virtual Prototype System	HVPS
Army	IBAS Virtual Prototype Simulation	IBAS LVPS
Navy/Marine Corps	Indoor Simulated Marksmanship Trainer	ISMT
Navy/Marine Corps	Indoor Simulator Marksmanship Trainer	ISMT

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Navy/Marine Corps	Infantry Squad Trainer	IST
Air Force	Infrared Missile Simulation	IRMS
Navy/Marine Corps	Infrared Seeker Trade-Off Requirements Model II	IRSTORM II
Air Force	Infrared Tactical Scene Simulation	IRTSS
Army	Institutional GRIZZLY Training Devices and Simulators	GRIZZLY TDS
Army	Institutional WOLVERINE Training Devices and Simulators	WOLVERINE TDS
Air Force	Integrated Computational Environment for Product Development and Acquisition	ICE
Air Force	Integrated Defensive Avionics Laboratory	IDAL
Army	Integrated Forward Area Air Defense Simulation	FAAD IFS
Navy/Marine Corps	Integrated Ship Defense Simulations - Control ACDS	ISD Control ACDS
Navy/Marine Corps	Integrated Ship Defense Simulations - Control and Analysis Collection and Analysis	ISD Control and Analysis Collection and Analysis
Navy/Marine Corps	Integrated Ship Defense Simulations - Control and Analysis Scenario Generator	ISD Control and Analysis Scenario Generator
Navy/Marine Corps	Integrated Ship Defense Simulations - Control and Analysis Simulation Control	ISD Control and Analysis Simulation Control
Navy/Marine Corps	Integrated Ship Defense Simulations - Control SSDS	ISD Control SSDS
Navy/Marine Corps	Integrated Ship Defense Simulations - Control WASP Stimulators	ISD Control WASP Stimulators
Navy/Marine Corps	Integrated Ship Defense Simulations - Counter Targeting	ISD Counter Targeting
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect AIEWS (ESM)	ISD Detect AIEWS (ESM)
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect CEC	ISD Detect CEC
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect CIWS Detect	ISD Detect CIWS Detect
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect Conceptual MFR	ISD Detect Conceptual MFR
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect IRST	ISD Detect IRST
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect MK-95	ISD Detect MK-95
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect SPQ-9B	ISD Detect SPQ-9B
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect SPS-48E	ISD Detect SPS-48E
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect SPS-49(MPU)	ISD Detect SPS-49(MPU)
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect SPS-67	ISD Detect SPS-67
Navy/Marine Corps	Integrated Ship Defense Simulations - Detect TISS	ISD Detect TISS
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage Passive Decoys	ISD Engage Passive Decoys
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage AIEWS(ECM)	ISD Engage AIEWS (ECM)
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage CIWS	ISD Engage CIWS

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage ESSM	ISD Engage ESSM
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage ESSM+	ISD Engage ESSM+
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage IR Decoys	ISD Engage IR Decoys
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage Jamming (OPFOR)	ISD Engage Jamming (OPFOR)
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage Nulka	ISD Engage Nulka
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage RAM Block 0	ISD Engage RAM Block 0
Navy/Marine Corps	Integrated Ship Defense Simulations - Engage RAM Block 1	ISD Engage RAM Block 1
Navy/Marine Corps	Integrated Ship Defense Simulations - Environment EM Propagation	ISD Environment EM Propagation
Navy/Marine Corps	Integrated Ship Defense Simulations - Environment IR Scene	ISD Environment IR Scene
Navy/Marine Corps	Integrated Ship Defense Simulations - Environment Land Clutter	ISD Environment Land Clutter
Navy/Marine Corps	Integrated Ship Defense Simulations - Environment Sea Clutter	ISD Environment Sea Clutter
Navy/Marine Corps	Integrated Ship Defense Simulations - Environment Weather	ISD Environment Weather
Navy/Marine Corps	Integrated Ship Defense Simulations - Ownship Data EM Signature	ISD Ownship Data EM Signature
Navy/Marine Corps	Integrated Ship Defense Simulations - Ownship Data Ship Motion	ISD Ownship Data Ship Motion
Navy/Marine Corps	Integrated Ship Defense Simulations - Ownship IR Signature	ISD Ownship IR Signature
Navy/Marine Corps	Integrated Ship Defense Simulations - Reactive Threats Dual Mode IR/RF	ISD Reactive Threats Dual Mode IR/RF
Navy/Marine Corps	Integrated Ship Defense Simulations - Reactive Threats Low/Fast RF/ARM	ISD Reactive Threats Low/Fast RF/ARM
Navy/Marine Corps	Integrated Ship Defense Simulations - Reactive Threats Low/Slow RF	ISD Reactive Threats Low/Slow RF
Navy/Marine Corps	Integrated Ship Defense Simulations - Reactive Threats Next Generation	ISD Reactive Threats Next Generation
Navy/Marine Corps	Integrated Ship Defense Simulations - Reactive Threats Test Assets	ISD Reactive Threats Test Assets
Air Force	Integrated Test Bed (Aircraft Avionics Subsystem Simulation)	ITB
Army	Integrated Unit Simulation System	IUSS
Air Force	Intelligence Data Analysis System for Spacecraft	IDASS
Army	Intelligent Minefield Integrated Acoustic Sensor Emulator	IMF/IAS
Army	Interactive Distributed Engineering Evaluation and Analysis Simulation	IDEEAS

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
BMDO	Israeli Testbed (Arrow Missile Simulator Testbed)	Israeli Testbed
Air Force	IVIEW 2000	-
Navy/Marine Corps	Jampot	-
Army	Janus	-
Jt Staff/Combatant Cmds	Joint Conflict and Tactical Simulation	JCATS
Air Force	Joint Education Mobility Model	JEMM
Jt Staff/Combatant Cmds	Joint Flow & Analysis System for Transportation	JFAST
Air Force	Joint Modeling and Simulation System	JMASS
Army	Joint Readiness Training Center Instrumentation System	JRTC-IS
NSA	Joint SIGINT Simulation	J-SIGSIM
Jt Staff/Combatant Cmds	Joint Simulation System	JSIMS
Navy/Marine Corps	Joint Simulation System Maritime	JSIMS Maritime
Air Force	Joint Stars Emulator	JSX
Air Force	Joint Surveillance Target Attack Radar System Mission Crew Training System	JSTARS MCTS
Navy/Marine Corps	Joint Tactical Combat Training System	JTCTS
Jt Staff/Combatant Cmds	Joint Theater Level Simulation	JTLS
BMDO	Joint Theater Missile Defense Planner now Joint Defensive Planner	JDP(JTMDP)
Army	Joint Training Confederation	JTC
OSD OD(PA&E)	JWARS	Joint Warfare System
Air Force	KC-10 Boom Operator Trainer	KC-10 BOT
Air Force	KC-10 Weapon System Trainer	KC-10 WST
Air Force	KC-135 Weapon System Trainer	KC-135 WST
Air Force	KC-135R Weapons System Trainer	KC-135R WST
BMDO	Kinetic Kill Vehicle Hardware-In-The-Loop Simulation Facility	KHILS
Navy/Marine Corps	LGB Six Degree-of-Freedom simulation	LGB
Army	Line of Sight Anti-Tank (LOSAT) Virtual Prototype Simulation	LVPS
Navy/Marine Corps	Link 11 Data Distribution System	LDDS
Navy/Marine Corps	Link 11 Display System	LEDS
Navy/Marine Corps	Link 11 Interoperability Simulation and Certification System	MULTOTS ISA
Navy/Marine Corps	Link 11 Naval Tactical Data System Emulator	LINK11 NTDS
Navy/Marine Corps	Link 4A Standalone Simulation System	L4SAS
Navy/Marine Corps	Link 4A Test Set	L4TS
Navy/Marine Corps	Link 4A, 11 and 16 Interoperability and Certification System	MULTOTS MLST3
Navy/Marine Corps	Live Entity Gateway (LEG)	LEG
Air Force	Logistics Composite Simulation Model	LCOM
Navy/Marine Corps	LSGUNS	Land or Sea Gun System Simulation
Army	M2 Bradley Virtual Prototype	M2 BRADLEY VP

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Army	Maneuver Combat Training Center Live Fire Instrumentation System	MCTC-LF-IS
Army	Man-in-the-Loop Motion Base Simulation	MIL MBS
Navy/Marine Corps	Maritime Support Activity VP AN/ASQ-212 Simulation System	P-3C Simulator
Air Force (shared funding with Jt Staff/Combatant Cnds)	MC-130E Weapon System Trainer	MC-130E WST
Air Force (shared funding with Jt Staff/Combatant Cnds)	MC-130H Mission Rehearsal Device	MC-130H MRD
Air Force (shared funding with Jt Staff/Combatant Cnds)	MC-130H Weapon System Trainer	MC-130H WST
Air Force	MC-130P Weapon System Trainer	MC-130P WST
Air Force	MH-53J Weapon System Trainer	MH-53J WST
Air Force	MH-60G Weapon System Trainer	MH-60G WST
Army (shared funding with Jt Staff/Combatant Cnds)	MH-60K/MH-47E Special Operations Aviation Combat Mission Simulator (SOACMS)	MH-60K/MH-47E SOACMS
Air Force	MIL-II Future Air Combat Tool	FACT
Navy/Marine Corps	Mine Search System Model	MSSM
Navy/Marine Corps	Missile Guidance System Evaluation Laboratory	GSEL Msl
Army	MLRS Advanced Tactical Simulation	MATS
Army	Mobile Automated Instrumentation System	MAIS
Air Force	Mobility Analysis Support System	MASS
Army	Mobilization and Deployment Capability Assurance Project (MADCAP) Integration Management Initiative	MIMI
Army	Mobilization Capabilities Evaluation Model	MOBCEM
NSA	Modeling, Simulation, Artificial Reality & the Virtual Classroom Training Research Effort	MSARVCTRE
Navy/Marine Corps	Modular Acoustic Simulation System	MASS
Army	Modular Semi-Automated Forces	ModSAF
Navy/Marine Corps	Multifunctional Information Distribution System (MIDS) Interface Simulator (MIS)	MIS
Air Force	Multi-Operator Design Assessment Laboratory	MODAL
Navy/Marine Corps	Multiple Aircraft Communication Handler for Link 4A	MACH-4
Army	Multiple Resolution Terrain Processor	MRTP
Air Force	Multiple Target Tracking	MTT
Army	Multiple Unified Simulation Environment	MUSE
Air Force	Multi-Ship Support Station	MSS
Navy/Marine Corps	Multi-target Effectiveness Determined Under Simulation for AEGIS	MEDUSA

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Army	Multiple Unified Simulation Environment	MUSE
Navy/Marine Corps	Multi-Warfare System Evaluator	MWES
Navy/Marine Corps	MV-22 Flight Training Device	MV-22 FTD
Navy/Marine Corps	MV-22 Full Flight Simulator	MV-22 FFS
Navy/Marine Corps	MV-22 Operational Flight Trainer	MV-22 OFT
Air Force	National Air & Space Warfare Model	NASM
Army	National Automotive Center-Visual Performance Model	NAC-VPM
Army	National Training Center-Objective Instrumentation System	NTC-OIS
Navy/Marine Corps	Naval Air Battle Evaluation Model II	NABEM II
Navy/Marine Corps	Naval Gunfire Support Mobile Team Trainer	NGFSMTT (20E19)
Navy/Marine Corps	Naval Mine Warfare Simulation	NMWS
Navy/Marine Corps	Naval Simulation System	NSS
Jt Staff/Combatant Cmds	Networks and Warfare Simulation	NETWARS
Army	Next Generation Performance Model	NGPM
BMDO	NMD High Fidelity System Simulator	HFSS or OSIM
Air Force	Open Air Ranges	OAR
Army	Optimized Network Engineering Tools	OPNET
Navy/Marine Corps	P-3C Tactics Trainer	P-3C TT
Navy/Marine Corps	P-3C Update III Tactics Trainer	P-3C Update III TT
Navy/Marine Corps	P-3C Update III Weapon System Trainer	P-3C Update III WST
Navy/Marine Corps	P-3C Weapon System Trainer	P-3C WST
Army	Patient Workload Generator Model	PATGEN
Army	PC Interface Unit	PIU
Air Force	Phillips Laboratory Expert Unified Simulator	PLEXUS
Army	Physically Reasonable Infrared Signature Model	PRISM
Army	Port Simulation Model	PORTSIM
BMDO	Portable Space Model	PSM
Army	Powered Submunition Simulation with Mission Planner	PSS-MP
Army	Radar-Directed Gun System Simulation	RADGUNS
Navy/Marine Corps	Range Computation & Control System (RCCS II)/Data Analysis System (DAS)	RCCS II/DAS
Navy/Marine Corps	Range EW (Electronic Warfare) Emitter Simulation System	REWESS
Navy/Marine Corps	Real-time Acoustic Simulator for Passive Sonar	RASPS
Air Force	Real-Times Piloted Engineering Flight Simulation	-
Army	Reconfigurable Fire Control Model	RFCM
Army	Reconfigurable Tactical Operations Simulator	RTOS
Air Force	Rivet Joint Mission Trainer	RJMT
Air Force	Rivet Joint Virtual Simulation	RJVS

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Air Force	Rome Laboratory Space-Time Adaptive Processing Algorithm Development Tool	RLSTAP/ADT
Army	Rotary Wing Virtual Prototype	RWVP
Navy/Marine Corps	S-3B Operational Flight Trainer	S-3B OFT
Navy/Marine Corps	S-3B Tactics Trainer	S-3B TT
Navy/Marine Corps	S-3B Weapon System Trainer	S-3B WST
Air Force	Satellite and Missile Analysis Tool	SMAT
Air Force	Satellite-Based Navigation Performance Model	SNAPM
Navy/Marine Corps	Scenario Structured Torpedo Operational Requirements Model	SSTORM
Air Force	Scintillation Network Decision Aid	SCINDA
Navy/Marine Corps	Search and Track Program	SEATRAP
NSA	Security Management Infrastructure Support	SMIS
Air Force	Sensor Combat/Sensor Cover/Sensor Spook	-
Navy/Marine Corps	SH-60B Operational Flight Trainer	SH-60B OFT
Navy/Marine Corps	SH-60B Tactics Trainer	SH-60B TT
Navy/Marine Corps	SH-60B Weapon System Trainer	SH-60B
Navy/Marine Corps	SH-60B Weapons System Trainer	SH-60B WST
Navy/Marine Corps	Ship Vulnerability Model	SVM
Navy/Marine Corps	Shipboard Environment and Missile Simulation	SEMS
Navy/Marine Corps	Shrike Six Degree-of-Freedom simulation	AGM-45
Navy/Marine Corps	Sidearm (AGM-122) Six Degree-of-Freedom simulation	-
Navy/Marine Corps	Simulated Warfare Environment Generator	SWEG
DARPA	Simulation Based Design	SBD
Army	Simulation of Logistics Systems	SIMULOGS
Navy/Marine Corps	Simulation of Naval Engagements-Hull, Mechanical, and Electrical Version	SIM-II-HM&E
Army	Simulation Testing Operations Rehearsal Model	STORM
Navy/Marine Corps	Single and Dual Mode Missile Guidance System Evaluation Laboratories	GSEL S/D
Army	Smart Munitions Analysis Code	SMAC
Army	Smart Munitions Test Suite	SMTS
Army	Soldier Protective Ensemble Computer Aided Design System	SPE-CAD
Army	Soldier Station	Soldier Station
Navy/Marine Corps	Sonar Employment Trainer	SET
Jt Staff/Combatant Cmds	Space / Earth ElectroMagnetic Compatibility Radiation	SEER
Air Force	Space and Missile Training System	SMTS
Air Force	Space Virtual Interface System	Space VIS
Air Force	Spacecraft Simulation Toolkit	SST
Air Force	Speckle Model	-
Navy/Marine Corps	SPY Sensor Simulation Unit	SPY SSU

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Navy/Marine Corps	SPY Standalone Simulation	S3
Air Force	SR-71 Weapon System Trainer	SR-71 WST
Navy/Marine Corps	STANDARD Missile Block IVA IR Seeker Image-Based Simulation	IR Seeker
Navy/Marine Corps	Standard Missile Company Hardware In The Loop	SMCo HIL
Navy/Marine Corps	STANDARD Missile Electronic Counter Counter-Measures	SM-2 ECCM
Navy/Marine Corps	STANDARD Missile-2 Block IIIB 6DOF Simulation	SM-2 Blk IIIB
Navy/Marine Corps	STANDARD Missile-2 Block IVA 6DOF Simulation	SM-2 Blk IVA
Navy/Marine Corps	STANDARD Missile-2Block IV 6DOF Simulation	SM-2Blk IV
Navy/Marine Corps	STANDARD Missile-3 6DOF Simulation	SM-3
Navy/Marine Corps	STANDARD Missile-4 6DOF Simulation	SM-4 (LASM)
Navy/Marine Corps	STANDARD Missile-5 6DOF Simulation	SM-5
Army	Static Entity Server	SES
Air Force	Strategic and Theater Attack Modeling Process	STAMP
Navy/Marine Corps	Submarine Multi-Mission Team Trainer	SMMTT
Navy/Marine Corps	Submarine Piloting and Navigation (2000) Trainer	SPAN (2000)
Navy/Marine Corps	Submarine Sensor, Weapons, Tactics Simulation	SIM-II
Navy/Marine Corps	Submarine Systems Effectiveness and Assessment Model	SUBSEA Model
Navy/Marine Corps	Surface AAW Multi-ship Simulation	SAMS
Navy/Marine Corps	Surface Ship USW Land Based Integrated Test Site	LBITS
Army	Symbolically Optimized Vehicle Analysis System	SOVAS
Navy/Marine Corps	Synthetic Air Range	SAR
Air Force	Synthetic Battlefield Development Environment	SYNBAD
Navy/Marine Corps	Synthetic Environment Tactical Integration	SETI
Navy/Marine Corps	Synthetic Sea Range (SSR)	SSR
DARPA	Synthetic Theater of War Advanced Concept Technology Demonstration	STOW ACTD
Navy/Marine Corps	System Performance Evaluator Comprising Target RADAR Missile	SPECTRM
Air Force	T-38 Multi-task Trainer	T-38 MTT
Army	Tactical Internet Model	TIM
Navy/Marine Corps	Tactical Operational Scene	TOPSCENE
Army	TACTICS	TACTICS
Army	Target Acquisition Fire Support Model	TAFSM
Air Force	Target Identification Algorithm	-
Air Force	Target Scheduling	-
Air Force	TH-53A Operational Flight Trainer	TH-53A OFT
Navy/Marine Corps	The 21st Century Surface Combatant Smart Product Model (planned)	SC 21 SPM
Army	The Vulnerability Server	The Vulnerability Server
Air Force	Theater Air C2 Simulation Facility	TACCSF

## Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
BMDO	Theater Missile Defense System Exerciser	TMDSE
Air Force	Threat Fighter Simulation	TFS
Navy/Marine Corps	Time and Energy Management Simulation	TEMSIM
Navy/Marine Corps	Time Fuze	TIMFUZ
Navy/Marine Corps	Tomahawk Advanced Flight Simulation block IV	TAFS IV
Navy/Marine Corps	Tomahawk Advanced Flight Simulation Monte Carlo	TAFSMC
Navy/Marine Corps	Tomahawk Advanced Flight Simulation Monte Carlo (Block IV)	TAFSMCIV
Navy/Marine Corps	Tomahawk Engineering Simulation	TES
Navy/Marine Corps	Tomahawk Mission Validation System Register Level Simulation	TMVS
Army	TOW IBAS 6-Degrees Of Freedom	IBAS 6-DOF
Army	TOW ITAS 6-DOF	TOW ITAS 6-DOF
Navy/Marine Corps	Track Initiation Probability/ Probability of Detection	TRIPPOD
BMDO	Trajectory Generator	TG
Army	Transportable Range Augmentation and Control System	TRACS
Army	Transportation System Capability	TRANSCAP
Navy/Marine Corps	Tropospheric Electromagnetic Parabolic Equation Routine	TEMPER
Army	UH-1 Flight Simulator	UH-1 FS
Navy/Marine Corps	UH-1N Aircrew Procedures Trainer	UH-1N APT
Navy/Marine Corps	UH-1N Weapon System Trainer	UH-1N WST
Army	UH-60 Flight Simulator	UH-60 FS
Army	US Army Tank-Automotive and Armaments Command (TACOM) Thermal Image Model	TTIM
Army	Vector In Commander	VIC
Air Force	Velocity Filter	-
Army	VETRONICS Simulation Facility	VSF
Navy/Marine Corps	Virtual Environment Submarine Trainer	VESUB
Army	Virtual Prototype Simulator	VPS
Navy/Marine Corps	VS Simulation Prototype System	Navigation Simulator
Army	Warfighters' Simulation 2000	WARSIM 2000
BMDO	Wargame 2000	Wargame 2000
Navy/Marine Corps	Warhead Evaluation Program	WHDEVAL
Army	Weather and Atmospheric Visualization Effects for Simulation	WAVES
DSWA	Weapons Analysis and Lethality Tool Set	WALTS
Navy/Marine Corps	Weapons Analysis Facility	WAF
Navy/Marine Corps	Weapons and Tactics Analysis Center (WEPTAC 2 Simulation)	WEPTAC
Army	XM15S	XM15S
Army	XM17S	XM17S
Army	XM330ES	XM330ES

### Simulations Committed to HLA Compliance

DoD Component	Simulation Name	Acronym
Army	XM43S	XM43S
Army	XMDEWS	XMDEWS
Army	XMVIS	XMVIS

**The total number of simulations to be HLA compliant is 451**

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Air Force	Adaptive Satellite Communications Analysis Computer Program	SATCOM	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Navy/Marine Corps	Air Tactical Control Operator Trainer	ATACO (20F18/A)	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Air Force	Analog/Microwave Circuit Modeling and Simulation	-	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Air Force	Battle Damage Assessment Simulation	BDASIM	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Navy/Marine Corps	Battle Force EMI Evaluation System	BEES	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Air Force	Block Oriented Network Simulator	BONeS	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Air Force	BRAWLER	BRAWLER	Simulations with a planned and programmed replacement (FACT) which will not be available prior to the "no can play" date of October 1, 2000.
Army	Brigade/Battalion Battle Simulation	BBS	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Chaff Cloud Model	CCM	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Army	Combat Service Support Training Simulation System	CSSTSS	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Army	Concepts Evaluation Model	CEM	Simulations with a planned and programmed replacement (ARES) which will not be available prior to the "no can play" date of October 1, 2000.
Army	Corps Battle Simulation	CBS	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	Defensive Weapons OT/ Onar Team Training Laboratory	TSOT/STTL	Simulations with a planned and programmed replacement (SMITT) which will not be available prior to the "no can play" date of October 1, 2000.
Jt Staff/Combatant Cmds	Deployable Exercise System	DEXES	Simulations with a planned and programmed replacement (JSIMS) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Enhanced Surface-to-Air Missile Simulation	ESAMS	Simulations with a planned and programmed replacement (NASM and ESAMS) which will not be available prior to the "no can play" date of October 1, 2000.
NIMA/PAS	Exploitation Center Analysis Tool	ECAT	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Jt Staff/Combatant Cmds	Fallout Assessment System/Civilian Vulnerability Indicator Code	FAS/CIVIC	Simulations whose National security circumstances/risks restrict federation opportunities.
Navy/Marine Corps	FFG SQS-56 Sonar Operator Trainer	FFG SOT (14E28)	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Navy/Marine Corps	Flight Dynamics Computer Lab	FDCL	Simulations whose decidedly infrequent projected use (not more than twice annually) does not justify cost of HLA-compliance.
Jt Staff/Combatant Cmds	Force Deployment Estimator	FDE	Simulations with a planned and programmed replacement (JWARS) which will not be available prior to the "no can play" date of October 1, 2000.

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Army	Force Evaluation Model	FORCEM	Simulations with a planned and programmed replacement (ARES) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Graphical Workstation TIBS Emulator	GWS	Simulations with a planned and programmed replacement (JSIMS and GWS) which will not be available prior to the "no can play" date of October 1, 2000.
Jt Staff/Combatant Cnds	Joint Electronic Combat Electronic Warfare Simulation	JECEWSI	Simulations with a planned and programmed replacement (JSIMS) which will not be available prior to the "no can play" date of October 1, 2000.
Jt Staff/Combatant Cnds	Joint Operations Information Simulation	JOISIM	Simulations with a planned and programmed replacement (JSIMS) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Joint Primary Aircrew Training System	JPATS	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Air Force	Kadena Interim Tracking System	KITS	Simulations with a planned and programmed replacement (JTCTS and YMDS capability) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Libra	-	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Air Force	Liquid Rocket Engine Schematic Model	-	Parametric assessments in design simulations.
Air Force	Low Observables Design Synthesis Tool	-	Parametric assessments in design simulations.
Navy/Marine Corps	Marine Air Ground Task Force Tactical Warfare System	MTWS	Simulations with a planned and programmed replacement (JSIMS) which will not be available prior to the "no can play" date of October 1, 2000.
OSD OD(PA&E)	Model for Intertheater Deployment by Air and Sea	MIDAS	Simulations with a planned and programmed replacement which will not be available prior to the "no can play" date of October 1, 2000.

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Army	National Training Center Instrumentation System	NTC-IS	Simulations with a planned and programmed replacement (NTC-OIS) which will not be available prior to the "no can play" date of October 1, 2000.
Jt Staff/Combatant Cmds	NORAD Air Defense Model (Visual)	NADM_V	Simulations whose National security circumstances/risks restrict federation opportunities.
Air Force	Operations Atlantis II	OPSALT II	Simulations with a planned and programmed replacement (NASM and ACES/OPSALT II) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps Jt Staff/Combatant Cmds	Phoenix Launch Model Portable Space Model (USSPACECOM Version)	PHLAMO PSM	Parametric assessments in design simulations Simulations with a planned and programmed replacement (JSIMS) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Reengineered Air Warfare Simulation	AWSIM/R	Simulations with a planned and programmed replacement (NASM and AWSIM/R) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Rivet Joint Constructive Simulation	RJCS	Simulations with a planned and programmed replacement (JSIMS and RJCS capability) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	S-3B Training Simulation	S-3B	Simulations whose only computational platforms are obsolete and for which source code is not available.
OSD OD(PA&E)	Scenario Unrestricted Mobility Model for Intra-Theater Simulation	SUMMITS	Simulations with a planned and programmed replacement which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Simulator for Electronic Combat Training	SECT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Army	Simulator Networking	SIMNET	Simulations with a planned and programmed replacement (CCTT) which will not be available prior to the "no can play" date of October 1, 2000

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Army	Spectrum	-	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	STANDARD Missile Foreign Military Sales	SM FMS	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Navy/Marine Corps	STANDARD Missile-2 Block II 6DOF Simulation	SM-2 Blk II	Simulations of systems that are scheduled to be retired from the operational inventory by October 1, 2002.
Navy/Marine Corps	STANDARD Missile-2 Block III 6DOF Simulation	SM-2 Blk III	Simulations of systems that are scheduled to be retired from the operational inventory by October 1, 2002.
Navy/Marine Corps	STANDARD Missile-2 Block IIIA 6DOF Simulation	SM-2 Blk IIIA	Simulations of systems that are scheduled to be retired from the operational inventory by October 1, 2002.
Navy/Marine Corps	STANDARD Missile-I Block VIB 6DOF Simulation	SM-1 BLK VIB	Simulations of systems that are scheduled to be retired from the operational inventory by October 1, 2002.
Navy/Marine Corps	Submarine Combat Systems Team Trainer	CSTT ( 21A43)	Simulations with a planned and programmed replacement (SMMTT) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	Submarine Piloting and Navigation Trainer	SPAN (15F12C)	Simulations with a planned and programmed replacement (SPAN 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Supercompact PC	-	Simulations which are Commercial off the shelf (COTS), licensed or proprietary, were built primarily for other than DoD-customers, and over which DoD has no effective leverage to achieve compliance
Army	System Performance Model	SPM	Simulations with a planned and programmed replacement (NGPM) which will not be available prior to the "no can play" date of October 1, 2000.

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Air Force	T-1 Trainer Flight Simulator	T-1 TFS	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Navy/Marine Corps	T-2 Operational Flight Trainer	T-2 OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Navy/Marine Corps	T-34 Operational Flight Trainer	T-34 OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Air Force	T-37 Instrument Flight Simulator	T-37 IFS	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Air Force	T-38A Instrument Flight Simulator	T-38 IFS	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Navy/Marine Corps	T-44 Operational Flight Trainer	T-44 OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Navy/Marine Corps	T-45 Instrument Flight Trainer	T-45 IFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Air Force	T-45 Navigator Simulator	T-45 NTS	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Navy/Marine Corps	T-45A Operational Flight Trainer	T-45A OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Navy/Marine Corps	T-A4 Operational Flight Trainer	TA-4 OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Army	Tactical Simulation (Joint Training Confederation)	TACSIM(JTC)	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Army	Tactical Simulation (Operational Test)	TACSIM(OT)	Simulations with a planned and programmed replacement (WARSIM 2000) which will not be available prior to the "no can play" date of October 1, 2000.
Jt Staff/Combatant Cmds	TACWAR Integrated Environment	TACWAR (TIE)	Simulations with a planned and programmed replacement (JWARS) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	TH-57 Operational Flight Trainer	TH-57 OFT	Simulations of systems which are used exclusively for training and not intended to perform any operational mission (examples are trainer aircraft such as the T-45).
Jt Staff/Combatant Cmds	Theater Analysis Model	TAM	Simulations with a planned and programmed replacement (JWARS) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Theater Exercise Intel Simulation	TEXIS	Simulations with a planned and programmed replacement (NASM) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	THUNDER	THUNDER	Simulations with a planned and programmed replacement (JWARS and THUNDER) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	Tomahawk Advanced Flight Simulation Co-variance Analysis Program for Terrain Aided Inertial Navigation	TAFSCAP	Parametric assessments in design simulations
Navy/Marine Corps	Tomahawk Advanced Flight Simulation Co-variance Analysis Program for Terrain Aided Inertial Navigation for Tomahawk Land Attack Missile Block IV	TAFSCAPIV	Parametric assessments in design simulations

### Simulations to be Waived from HLA Compliance

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>	<b>Remarks</b>
Navy/Marine Corps	TRIDENT Command and Control Team Trainer	TCCTT (21A42A)	Simulations with a planned and programmed replacement (SMITT) which will not be available prior to the "no can play" date of October 1, 2000.
Navy/Marine Corps	TRIDENT Defensive Weapons Operator Trainer	DWOT (21B67A)	Simulations with a planned and programmed replacement (SMITT) which will not be available prior to the "no can play" date of October 1, 2000.
Air Force	Yukon Measurement and Debriefing System	YMDS	Simulations with a planned and programmed replacement (JTCTS and YMDS capability) which will not be available prior to the "no can play" date of October 1, 2000.

**The total number of simulations to be waived is 74**

## Simulations to be Retired by October 1, 2000

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>
Navy/Marine Corps	1-on-N TASM	-
Navy/Marine Corps	Advanced Modular Encounter Environment	AMEE
Air Force	Advanced Reference Scene Products	-
Army	Aerial Cable Target Simulation	ACTS
Air Force	Aerodynamic Missile Guidance Analysis Program	AMGAP
Air Force	Air Defense Initiative Simulation For Command and Control Development	ADISC2
Air Force	Air Force Command Exercise System	ACES
Air Force	ALD Nodehost Hardware/ Software	-
Air Force	AMC Deployment Analysis System	ADANS
Navy/Marine Corps	APL Boost	-
Army	Apollo Footprint Model	AFM
NIMA/PAS	Architecture Simulation and Analysis Platform	ASAP
BMDO	ARGUS	ARGUS
Army	Armored Battalion Recovery and Maintenance Simulation Model	ARMSIM
Army	Army Many-on-many Engagement Model	AMEM
BMDO	Attack	Attack
Air Force	Attack Assessment Program	AAP
Air Force	Automatic Reference Data Extraction	-
Army	Battle management Requirements Assessment Tool	BRAT
Air Force	C-135B Flight Simulator Trainer	C-135B FST
Navy/Marine Corps	CEB 6DOF	-
Navy/Marine Corps	CM6DOF	-
DSWA	Collaborative Adaptive Planning System	CAPS
Air Force	Combined Mating and Ranging Planning System	CMARPS
Army	Communication Network Simulator - Phase II	CNS-II
Air Force	Communications Avionics Navigation System	CANS II
Air Force	COMPASS CALL Mission Simulator (Block 20)	-
Air Force	Computer Aided Tactical Information System Server Model	CATIS
Air Force	Contingency Theater Automated Planning System (CTAPS) Wargame Interface Controller	CTAPS WIC
Army	Cover	-
Navy/Marine Corps	CWASAR	-
Army	Defense in Depth Simulation	DIDSIM / SIDSIM
Air Force	Distributed Multi-Wavelength Sensor Simulation	DMWSS
Army	Division Ammunition Management Simulator	DAMS
Air Force	Dynamic Ground Target Simulator	DGTS
Air Force	EF-111 Weapon System Trainer	EF-111 WST

## Simulations to be Retired by October 1, 2000

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>
Air Force	Electronic Countermeasures Techniques Modeling Tool	ECM
Air Force	Electronic Support Measures Analysis Technology	ESM
Army	Electronics Maintenance Company Model	EMCM
Navy/Marine Corps	Enhanced Naval Warfare Gaming System	ENWGS
Air Force	ERIC Simulation Language	-
Army	Exoatmospheric Discrimination Simulation	XoDIS
Jt Staff/Combatant Cmds	External Logistics Processor - Medical Module	LPX-MED
Air Force	F-15 McDonnell Douglas Reconfigurable Cockpit	MDRC
Air Force	F-15 Operational Flight Trainer	F-15 OFT
Air Force	F-15A Cockpit Familiarization Trainer	F-15 CFT
Air Force	F-15A Egress Procedures Trainer	F-15 EPT
Air Force	F-16 Air Intercept Trainer	F-16 AIT
Air Force	F-16 Weapon System Trainer	F-16 WST
Air Force	Fighter Aircraft Maneuvering Performance Analysis Program	FAMPAP
Air Force	Finite Element Modeling Analysis-Prismatic Mesh	FEMAPRISM
Air Force	Fire Control Sensor Simulator	FCSS
Army	Fire Support Command and Control Analysis Tool	FISCCAT
Air Force	Fixed Target Comparative Analysis	FTCA
Air Force	Fusion Techniques Evaluation Model	-
Navy/Marine Corps	Generalized Simulation/Stimulation	GSS
Air Force	Ground Attack Fighter Model	GAFM
Air Force	Guidance Error Analysis Program	-
DSWA	Hazard Prediction and Assessment Capability	HPAC
Navy/Marine Corps	High Speed Submerged Ship Control Trainer	HSSSCT (21B56E)
DSWA	High-Altitude EMP Target Analysis and Planning System	HEMP-TAPS
Air Force	Improved HF Data Network Simulation	INS
Navy/Marine Corps	Infrared fuzing Model	IRF Model
Army	Integrated Assessment Model	IAM
DIA	Integrated Missile and Radar Simulation	IMARS
DSWA	Integrated Nuclear Computational Aids	INCA
DSWA	Integrated Theater Engagement Model	ITEM
OSD OD(PA&E)	Intelligence, Surveillance and Reconnaissance Simulation	ISRSIM
Air Force	Internetted System Model	ISM
Jt Staff/Combatant Cmds	Joint Conflict Model	JCM
Jt Staff /Combatant	Joint Exercise Driver for Intelligence	JEDI

## Simulations to be Retired by October 1, 2000

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>
Cmds		
Navy/Marine Corps	Joint Services Endgame Model Version 2.2	JSEM
Jt Staff/Combatant	Joint Tactical Simulation	JTS
Cmds		
Army	JTDIS Analysis Model for Independent Evaluation	JAMIE
Air Force	KC-135 Table Top Navigation Rendezvous Trainer	KC-135 TTNRT
Air Force	Land/Air Combat in ERIC Simulation	LACE
Air Force	Maneuvering Reentry Vehicle Upgrade	MARV
Air Force	MASTER	TASE
Air Force	Meteor Burst Link/Network Simulator	-
Army	Midcourse Engagement Simulation	MidES
Air Force	MIL-AASPEM2	MIL2
Navy/Marine Corps	Mobile Combat System Trainers and Radar Video Recorder	MCST 20B4/20BS Vans and RAVIR
Army	Mobile Subscriber Equipment Simulation	MOSES
Air Force	Modular Control Equipment Sim	MCE
DSWA	Munitions Effects Assessment	MEA
Army	Network Assessment Model	NAM
DISA	Network Planning System	NPS
Army	Network Routing Algorithm Simulation	NETRAS
Air Force	Object-Oriented Cartographic Database and Map Display System	-
DSWA	Operational Multiscale Environment Model with Grid Adaptivity	OMEGA
Air Force	Optical Target Signature Model	OPTASM
Navy/Marine Corps	Outboard Operator Team Trainer	OBTT (7B4)
Air Force	Parametric Antenna Analysis System	PAAS
Air Force	Point-to-Point Data Link Emulator	-
Navy/Marine Corps	Precision Gunnery Training System	PGTS
Air Force	Radar Discrimination System Simulation	RDSSIM
DSWA	Radiometric Atmospheric Dust Environment	RADE
Air Force	Real Time Electromagnetic Digitally Controlled Analyzer and Processor	REDCAP
Air Force	Reference Scene Preparation for Scene Matching	-
Jt Staff/Combatant	Regional Development Simulation System	RDSS
Cmds		
Air Force	Reliability Physics	-
Navy/Marine Corps	Research, Evaluation, and System Analysis	RESA
Air Force	Residue Number System Matrix Processor	RNS
Air Force	Rocket Propulsion Analysis Capability Implementation	ROPACI
Army	Satellite Track	SATRA

## Simulations to be Retired by October 1, 2000

<b>DoD Component</b>	<b>Simulation Name</b>	<b>Acronym</b>
Air Force	SBRCOV, RADCOMP, BLIPPLT, PLOTMAP, PUSHMAP	-
DSWA	SCIPUFF	SCIPUFF
Air Force	Secure Tactical Internet Protocol Simulation	STIP
Air Force	SHAZAM2 Endgame Model	-
Navy/Marine Corps	SIMII/FMCMM	-
Navy/Marine Corps	Simulation for Naval Engagements/Flexible Monte Carlo Missile Model	SIMII/FMCMM
Navy/Marine Corps	Software Hardware Interface Unit	SHIU
BMDO	Space Based Infrared Simulation System/Wargaming Model	SBIRS/WM
Air Force	SpaceCraft Analysis Modeling Program	SCAMP
Air Force	Strategic Penetration Model	STRAPEM
Navy/Marine Corps	STRIKER TASM	-
Navy/Marine Corps	Submarine Launched Harpoon Simulation	SHARPSIM
Air Force	Suppressor Composite Mission Simulation	-
Navy/Marine Corps	Surface Anti-Submarine Warfare Trainer Device	SAWTD (14A12)
Army	Survivability Planning & Intercept Evaluation Tool	SPIET
Navy/Marine Corps	Table Driven Torpedo Engagement Analysis Model	TDT
Navy/Marine Corps	Tactical Advanced Simulation Warfare Integrated Trainer	TASWIT
Navy/Marine Corps	TASM Boost 6DOF	-
Navy/Marine Corps	TASM DS	-
Navy/Marine Corps	TASM-TG	-
Navy/Marine Corps	TATS	-
Navy/Marine Corps	THEAM	-
Navy/Marine Corps	TLAM Boost 6DOF	-
Navy/Marine Corps	TLAM Cruise 6DOF	-
Navy/Marine Corps	Tomahawk Engagement Planning and Exercise Evaluation	TEPEE
Army	TOTSIM95	TOTSIM95
Air Force	Touchstone Academy mwSPICE	-
Navy/Marine Corps	TRACK	-
Navy/Marine Corps	Trainer 20F15 Tactical Advanced Combat Direction and Electronic Warfare	TACDEW
Air Force	Trajectory Analysis Program	TRAP
DSWA	Virtual Interactive Target	VIT
Navy/Marine Corps	WLR-1H Electronic Support Measures Warfare Simulator (Radar Signal Simulator)	WLR-1H ESM WS (15E35)

**The total number of simulations to be retired is 137**