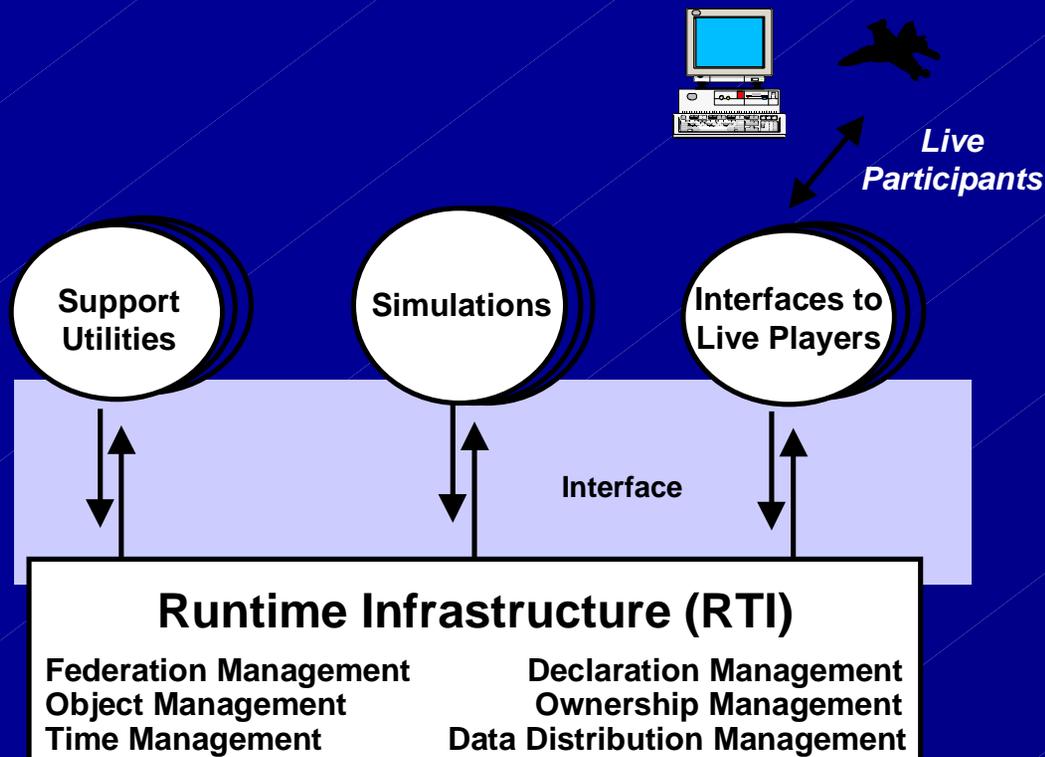


# High Level Architecture

Industry Days  
June 1999

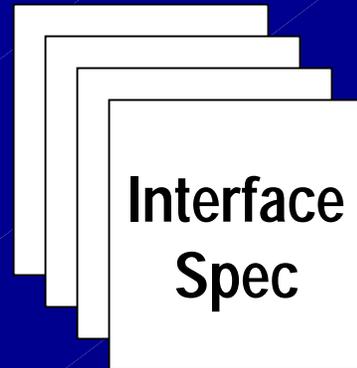
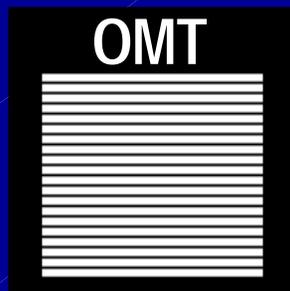
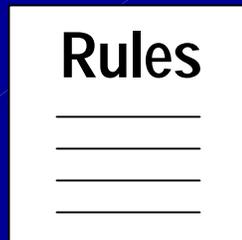
Dr. Judith Dahmann  
Chief Scientist  
Defense Modeling and Simulation Office

# Update On HLA Progress



- Specifications and Standardization
- Supporting Software
- User Services
- Compliance Testing
- Partnerships

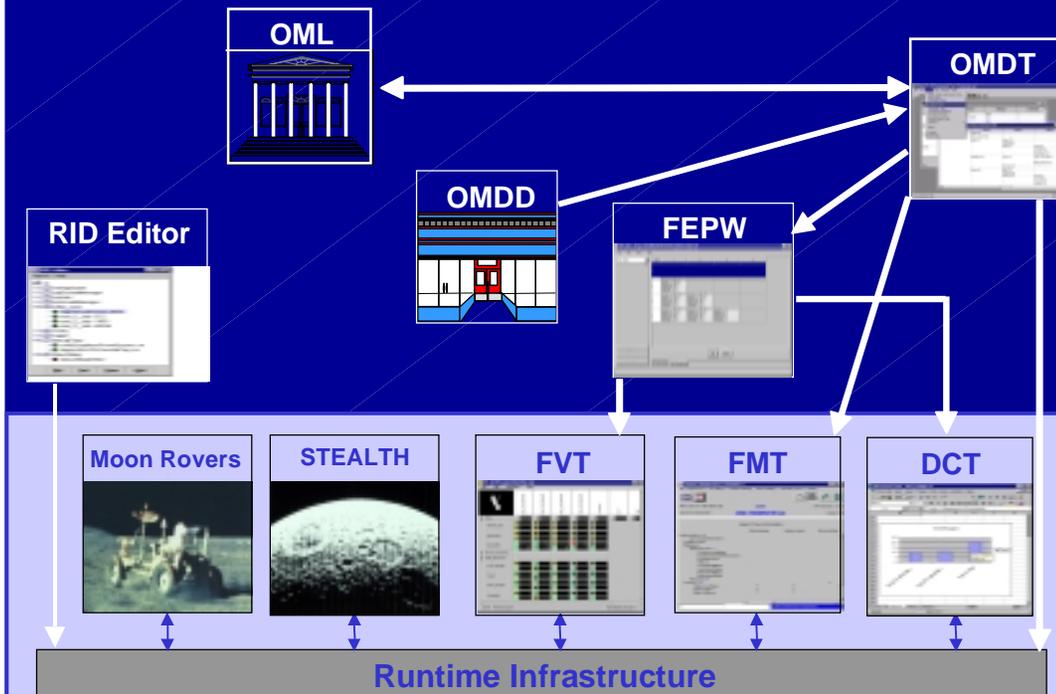
# Specification and Standardization



- **Version 1.3 adopted by AMG 2/98**
  - Current DoD Standard
- **Standards Progress**
  - May 98  
Joint Technical Architecture (JTA)
  - November 98  
Object Management Group (OMG)
  - November 98  
NATO M&S Master Plan
  - March 98  
IEEE 1516 voted into balloting
- **IEEE standards anticipated in 00**
  - upgrade of tools and support

# Supporting Software

- V1.3 SW first released in 4/98
- Current free software
  - RTI 1.3 (10 ports, 3 bindings)  
*over 1500 downloads*  
*RTI Next Generation in beta*
  - Obj Model Development Tool
  - Fed Exec Planners Workbook
  - RID Editor
  - Federation Verification Tool
  - Federation Mgt Tool
  - Data Collection Tool



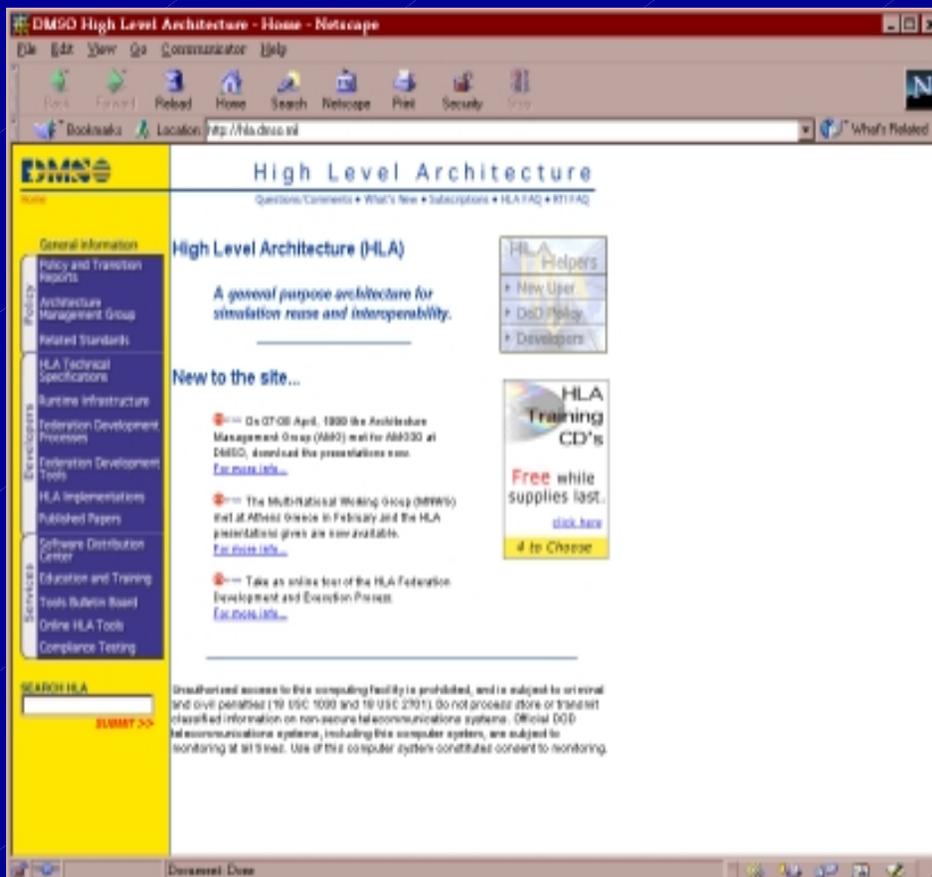
*demonstration at industry day booth*

*1516 Upgrades in progress*

- Open tools bulletin board

# User Services

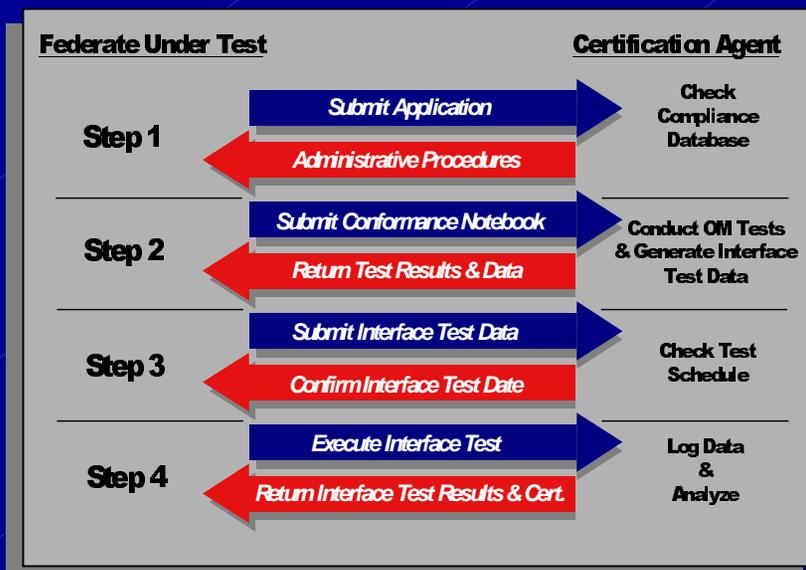
- User services initiated in 98
- Current/ongoing user support
  - Full web access to specs, services, and software
  - Free training
    - Monthly regional events
    - Hands-on training biweekly
    - Major professional meetings
    - CD ROMs for home training
    - HLA Video
  - *over 5000 training participants*
  - Academic Outreach Program
  - HLA\_Online for updates
  - HLA@dmsso.mil for help



# Compliance Testing



- Online federate compliance testing system available in 98
- Over 50 federates are now tested
  - Includes commercial and international, as well as DoD
  - Classified and group testing
  - Compliance costs average less than six staff months of effort
- RTI testing system now in beta
  - RTI 1.3NG in testing now
  - Commercial RTIs to be tested in 99



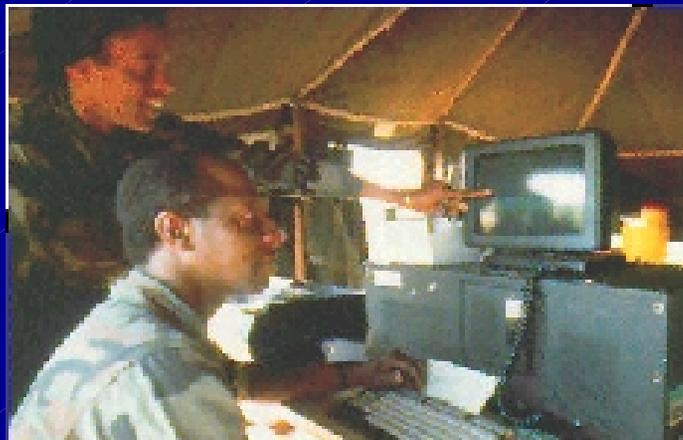
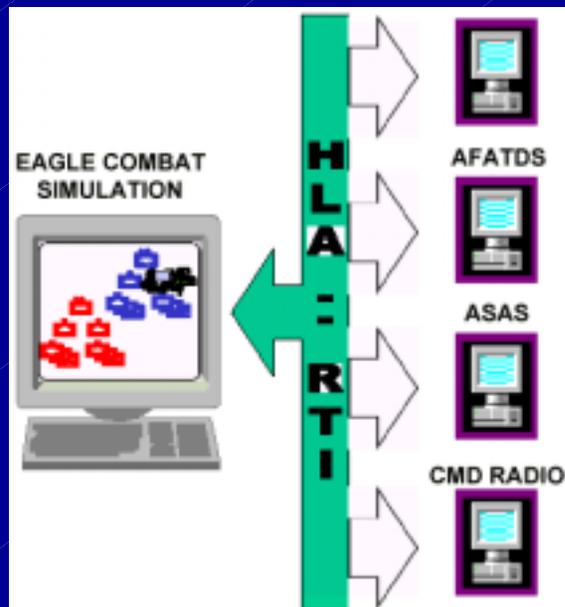
# Partnerships



- CADRE partnerships begun in 98
- Purposes
  - effective HLA use in key areas
  - early identification of tech issues
- Concept
  - teaming on topics of common interest
- Current key partnerships
  - T&E: JADS; Foundation Initiative
  - C2: DISA, JWFC, Services, NC3A
  - DMT: AFRL and Manned Flight
  - Experimentation/Analysis: ACOM
  - NATO CAX: DiMuNDS 2000

# CADRE Partnerships

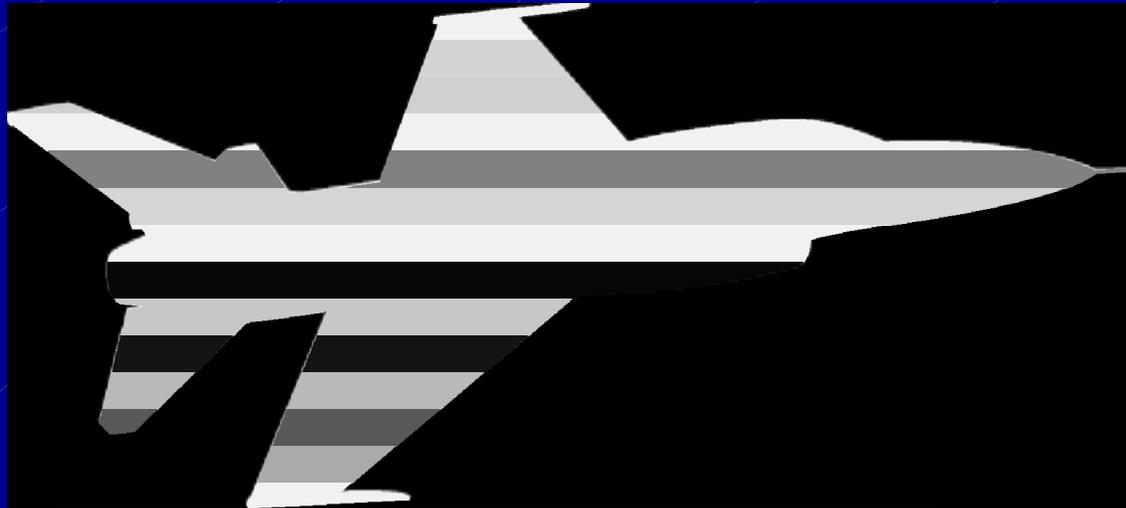
# C2 and Simulation



- HLA is designed to support interfaces between simulations and live systems
- Purpose
  - demonstrate application of HLA to simulation to C2 applications
- Current Activities
  - JTLS-GCCS JWFC, DISA
  - JTLS-NATO C2 JWFC, NC3A
  - *ITEC Europe in The Hague in April 99*
  - EAGLE-ArmyC2 JVEL, DLRC, AMSO
  - *Army Experiment 6 at FLVN in May 99*
  - NSS-GCCS Navy SPAWAR
  - TBMSC-Sim AF ESC
- Supports DII COE integration; JSIMS



# Distributed Mission Training



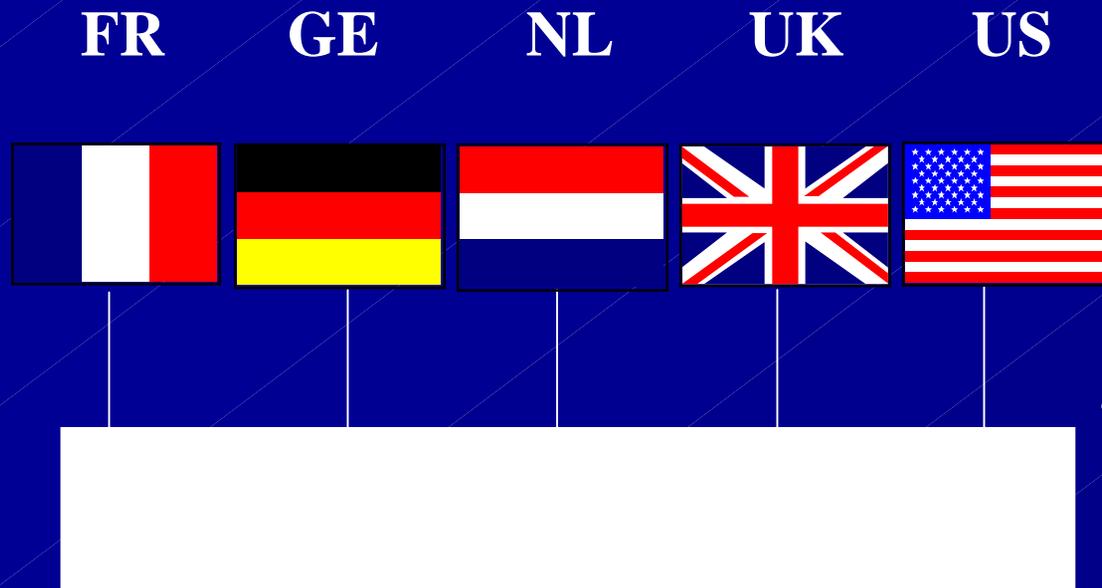
## Purpose

- Use of HLA to support linked flight simulators

## Current activities

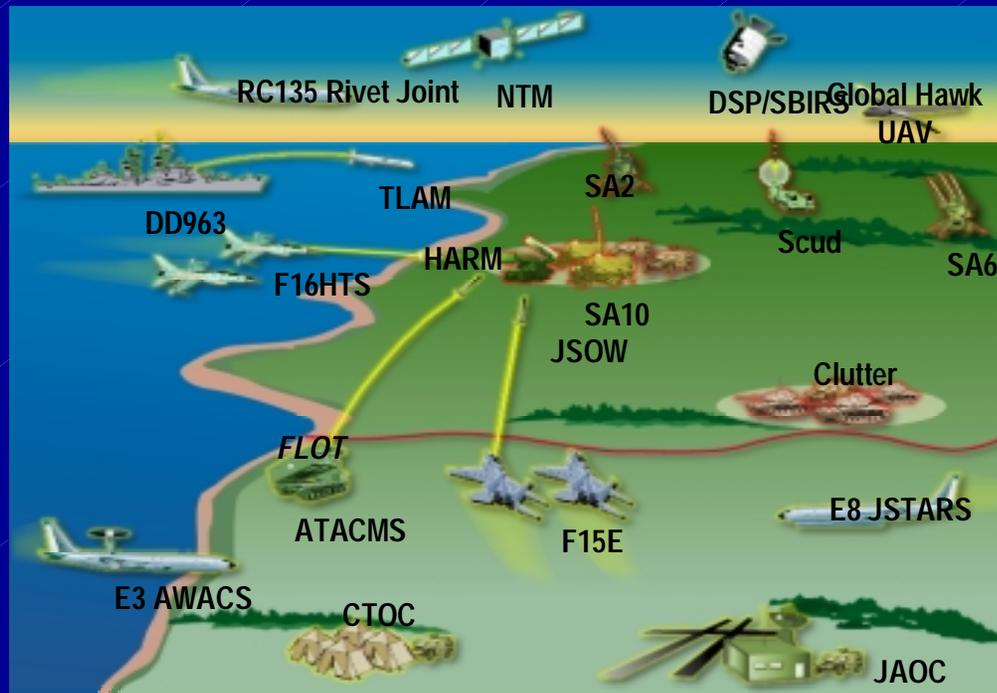
- VXWorks realtime OS port of RTI 1.3NG
- Roadrunner 98 review from HLA perspective
- Tasmanian Devil
  - AFRL MESA flight simulator with JointSAF
  - ACETEF Manned Flight flight simulator with JointSAF
  - Common FOM

# NATO Federation



- Purpose
  - Pre-pathfinder project for NATO Master Plan and Simulation Coordination Office
  - Skill building and tech transition to NATO computer-aided exercise community
- Cooperative effort with
  - France: Stradivarious, Air
  - Germany: Alice, Air
  - Netherlands: Kibowi, Ground
  - UK: JTLS/Maritime
  - US: Tools
  - NC3A: Integration

# Experimentation/Analysis



*demonstration at industry day booth*

- Purpose
  - Apply HLA to joint experimentation
- Current activities
  - Trailblazer federation:  
December 98 proof of principle demonstration
    - EAGLE (Army), NSS (Navy), EADSIM (AF) federation
    - JSEAD problem; J6 audience
  - Pegasus federation: in progress
    - Same base federation
    - ACOM J92 partnership
    - Tool integration, evolution to address JV2010 issues

# Future Directions

- CADRE approach has been very effective
  - benefits both the partner programs and the DMSO technology infrastructure development efforts
- FY '00 expansion of CADRE programs to support integrated technology application and user processes across DMSO programs
  - SEDRIS, data, user processes (security, VV&A), new requirements
- Focus of DMSO strategic thrusts
  - DMSO common, enterprise level functions in partnership with key DoD-wide, international and inter-agency initiatives