

# **Army Modeling and Simulation Past, Present and Future**



**Executive Forum  
for**

**Modeling and Simulation**

**LTG Paul J. Kern**

**Director, Army Acquisition Corps**

**May 30, 2001**

# REPORT DOCUMENTATION PAGE

Form Approved OMB No.  
0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 30-05-2001	2. REPORT TYPE Briefing	3. DATES COVERED (FROM - TO) xx-xx-2001 to xx-xx-2001
---	----------------------------	--

4. TITLE AND SUBTITLE Army Modeling and Simulation Past, Present and Future Unclassified	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S) Kern, Paul J. ;	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME AND ADDRESS Army Acquisition Corps xxxxx, xxxxxxxx	8. PERFORMING ORGANIZATION REPORT NUMBER
--	--

9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS United States Department of Defense Defense Modeling and Simulation Office 1901 N. Beauregard St., Suite 500 Alexandria, VA22311-1705	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT  
A PUBLIC RELEASE

13. SUPPLEMENTARY NOTES

14. ABSTRACT  
SMART is a process in which we capitalize on Modeling and Simulation (M&S) technology to address the issue of system development and life-cycle costs through the combined efforts of the requirements, training and acquisition communities. SMART is a process in which we capitalize on Modeling and Simulation (M&S) technology to address the issue of system development and life-cycle costs through the combined efforts of the requirements, training and acquisition communities.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:	17. LIMITATION OF ABSTRACT Public Release	18. NUMBER OF PAGES 13	19. NAME OF RESPONSIBLE PERSON Fenster, Lynn lfenster@dtic.mil
---------------------------------	--	---------------------------	--

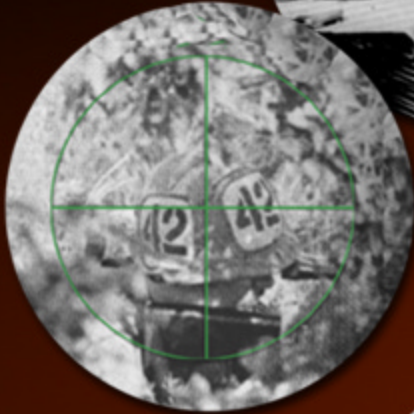
a. REPORT Unclassified	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified	19b. TELEPHONE NUMBER International Area Code Area Code Telephone Number 703767-9007 DSN 427-9007
---------------------------	-----------------------------	------------------------------	--

# Training Simulation: Past to Present

SCOPES/  
REALTRAIN  
1971



MILES  
1976 to Present



National Training  
Center



1982 to Present

# SMART Definition

**SMART is a process in which we capitalize on Modeling and Simulation (M&S) technology to address the issue of system development and life-cycle costs through the combined efforts of the requirements, training and acquisition communities.**



*“Be a world leader in Modeling and Simulation to continuously improve Army effectiveness through a disciplined collaborative environment in partnership with industry, government, and academia.”*

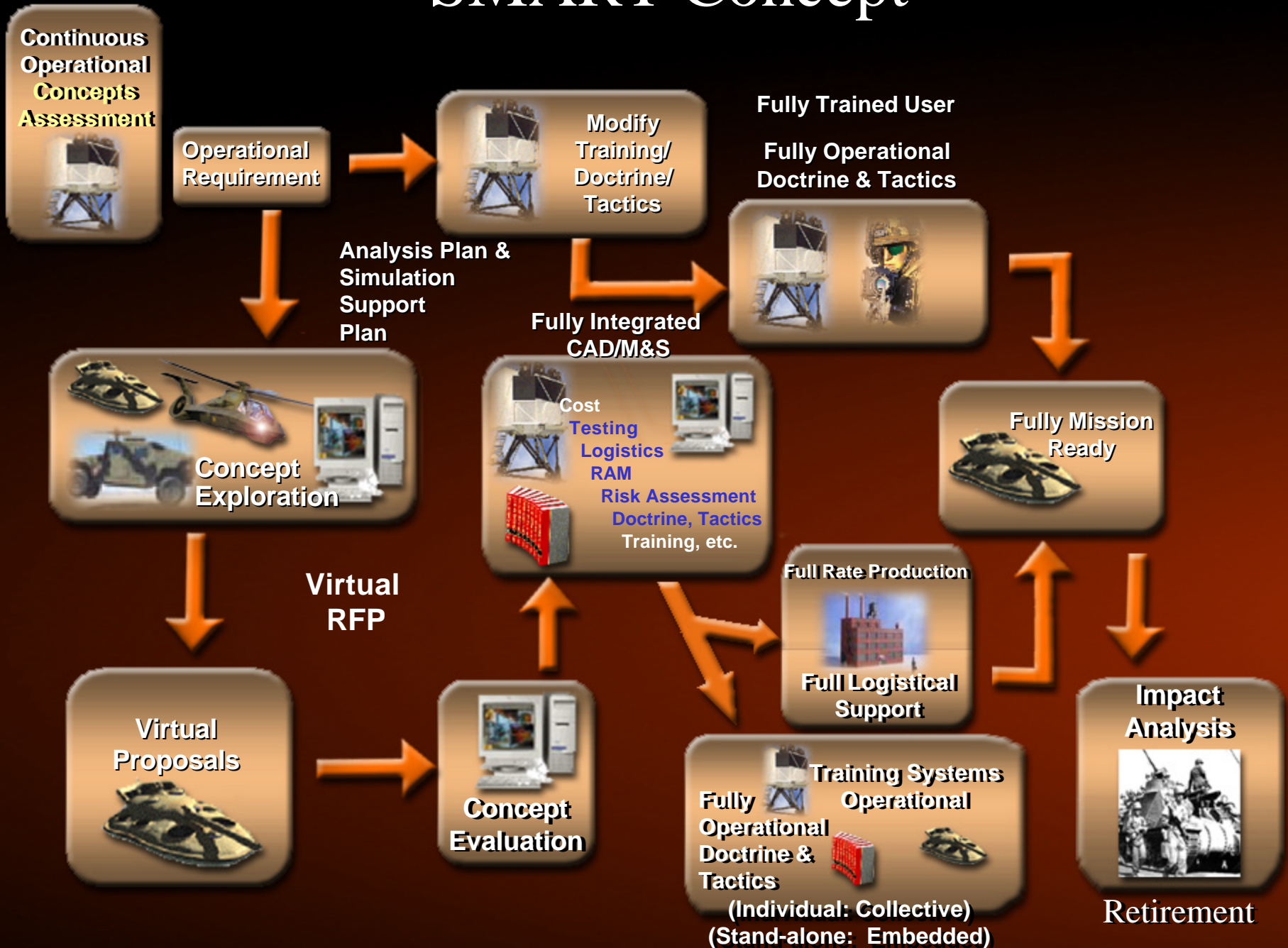
*3 November 1999*

**Larry R. Ellis**  
Lieutenant General, GS  
Deputy Chief of Staff  
for Operations and Plans

**Paul J. Kern**  
Lieutenant General, GS  
Military Deputy to the  
Assistant Secretary of the  
Army (Acquisition, Logistics  
and Technology)

**Walter W. Hollis**  
Deputy Under Secretary  
of the Army  
(Operations Research)

# SMART Concept



# Flagship Programs



- **Apache** poised to re-assess basic load, capitalize on product improvements to re-engineer logistic support



- **CCTT** can be Employed to Explore Doctrine and TTP for Future Systems to Influence Final Design

- **Crusader** program operates within an Integrated Digital Environment that links the Program Management Office, Contractor, Research Center, assorted test ranges, and other activities



- **Future Scout Cavalry System** ideally poised to benefit from M&S and Systems Engineering



# Modeling and Simulation Are Essential to Field the Objective Force In This Decade

2008



- Design Faster
- Collaborate Easier
- Explore Alternative Designs

# The Way Ahead

**SMART** is the enabler to allow the Army to complete the Transformation process within the established timelines. Coordination has been conducted to incorporate 45 of the 51 tasks in the **SMART Execution Plan** into the Transformation Campaign Plan.



# AMC RDEC Federation



**AMC-wide Distributed M&S Collaborative Environment**

# M&S Integration and Interoperation Across RDECs

**Design**

**Evaluate**

**Collaborate**

*RDEC M&S Commodities distributed over multiple, heterogeneous platforms*

SimServer  
ISTI

SimClient  
Anywhere

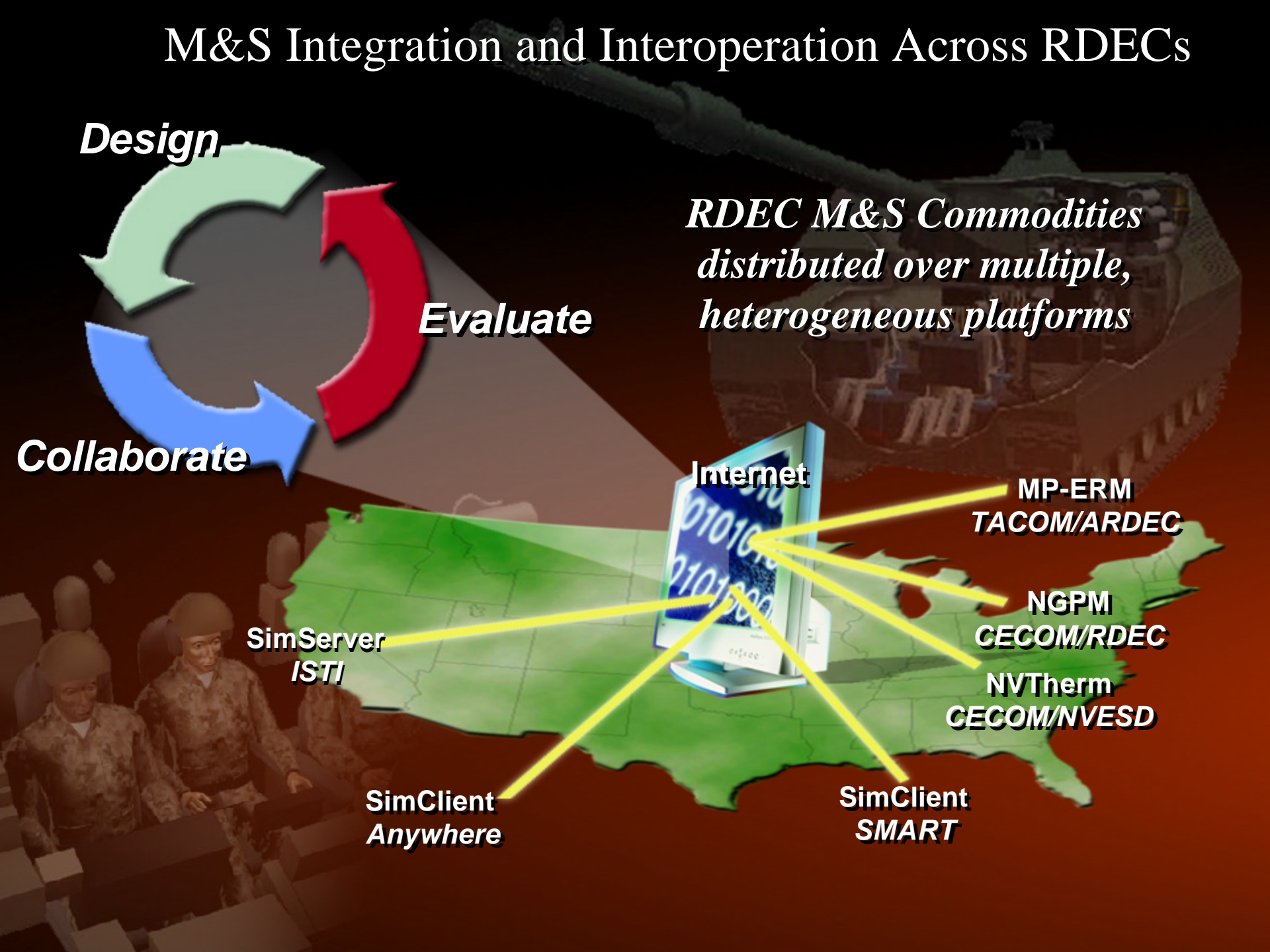
Internet

MP-ERM  
TACOM/ARDEC

NGPM  
CECOM/RDEC

NVTherm  
CECOM/NVESD

SimClient  
SMART



# SMART Collaboration With Entertainment Industry/Academia



- **Immersive Environments**
- **Urban Environment Simulation**
- **Stability and Support Operations Simulation**

# Training Simulations: The Future

- System Embedded Training



- Use of Hollywood Concepts to Create Immersive Training Environments



*Facing the  
Future...*

*Together*