

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

<b>BUDGET ACTIVITY</b> <b>5 - System Development and Demonstration</b>				<b>PE NUMBER AND TITLE</b> <b>0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT</b>					
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	43673	16818	42869	33576	24750	23195	22380	Continuing	Continuing
361 INTELLIGENCE SIMULATION SYSTEMS	7028	2251	1192	1227	1024	1246	1270	Continuing	Continuing
362 WARFIGHTER SIMULATION	36645	14567	41677	32349	23726	21949	21110	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** This program element funds the development of constructive and wargame simulations used to realistically train commanders and their battlestaffs on today's complex battlefield conditions. Project 361 funds the development of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) that provides Warfighting Commanders at all echelons the ability to train with Intelligence, Surveillance, and Reconnaissance (ISR) product based on realistic ISR assets, people (maneuver commander, G-2, G-3, collection managers analyst/operator) and processes. IEWTPT provides embedded training capability for Future Combat Systems (FCS) ISR systems. IEWTPT will interface/stimulate ISR systems including Tactical Unmanned Aerial Vehicle (TUAV), Joint Surveillance Target Attack Radar System- Common Ground Station (JSTARS-CGS), Aerial Common Sensor(ACS), Tactical Exploitation System/Distributed Tactical Exploitation System (TES/DTES), Guardrail, Counter Intelligence/Human Intelligence Management Systems (CHIMS), Prophet and Distributed Common Ground Station-Army (DCGS-A). IEWTPT is the only Army Simulation System supporting ISR training from the Warfighter to the Military ISR Analyst/System Operator. The FY05 funding completes initial development and continues product improvements of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT). Project 362, Warfighters' Simulation (WARSIM) develops the Army's premier wargame simulation for training leaders and battlestaffs at Brigade, Division, Corps, and echelons above Corps. WARSIM will provide functionality not currently available (digital operations, stability and support operations, information ops), link to unit organizational Command, Control, Communications, Computers and Integration (C4I) equipment, improve exercise generation and after-action reporting. WARSIM will interoperate with OneSAF and other simulation as an integral part of Army Constructive Training Federation (ACTF), so that a warfighter training exercise can represent in simulation all Army echelons and in a Joint environment. ACTF pulls together current constructive simulation systems and future constructive simulations and uses a comprehensive strategy to ensure interoperability among all of those systems. This strategy will allow ACTF to meet current and future user needs. ACTF leverages the best pieces of current systems to meet current training needs and evolves to meet the training needs of the future force.

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<u><b>B. Program Change Summary</b></u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	43813	16994	1155
Current Budget (FY 2005 PB)	43673	16818	42869
Total Adjustments	-140	-176	41714
Congressional program reductions		-159	
Congressional rescissions			
Congressional increases			
Reprogrammings	-140	-17	
SBIR/STTR Transfer			
Adjustments to Budget Years			41714

Army restored funding to the WARSIM Program to support constructive simulation development.

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2004

<b>BUDGET ACTIVITY</b> <b>5 - System Development and Demonstration</b>	<b>PE NUMBER AND TITLE</b> <b>0604742A - CONSTRUCTIVE SIMULATION</b>						<b>PROJECT</b> <b>361</b>		
<b>SYSTEMS DEVELOPMENT</b>									
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
361 INTELLIGENCE SIMULATION SYSTEMS	7028	2251	1192	1227	1024	1246	1270	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) provides Warfighting Commanders at all echelons the ability to train with Intelligence, Surveillance, and Reconnaissance (ISR) product based on realistic ISR assets, people (maneuver commander, G-2, G-3, collection managers analyst/operator) and processes. IEWTPT provides embedded training capability for Future Combat Systems (FCS) ISR systems. IEWTPT will interface/stimulate ISR systems including Tactical Unmanned Aerial Vehicle (TUAV), Joint Surveillance Target Attack Radar System- Common Ground Station (JSTARS-CGS), Aerial Common Sensor(ACS), Tactical Exploitation System/Distributed Tactical Exploitation System (TES/DTES), Guardrail, Counter Intelligence/Human Intelligence Management Systems (CHIMS), Prophet and Distributed Common Ground Station-Army (DCGS-A). IEWTPT is the only Army Simulation System supporting ISR training from the Warfighter to the Military ISR Analyst/System Operator. The FY05 funding completes initial development and continues product improvements of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT).

This system supports the Future transition path of the Transformation Campaign Plan (TCP).

<b>Accomplishments/Planned Program</b>	FY 2003	FY 2004	FY 2005
Continued product improvement with interoperability testing with system Target Signature Arrays (TSA) of IEWTPT.	5754	770	357
Continues IEWTPT Program Management support	226	233	130
Continues IEWTPT Test planning and execution.	307	421	213
Continues IEWTPT Systems engineering, documentation, and Security accreditation and certification. IEWTPT Engineering Change Proposals.	741	776	492
SBIR/STTR	0	51	0
<b>Totals</b>	<b>7028</b>	<b>2251</b>	<b>1192</b>

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

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<b><u>B. Other Program Funding Summary</u></b>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
OPA3, Appropriation NA0100, Training Devices, Nonsystem	156811	311963	241946	197566	226341	171085	209303	Continuing	Continuing

**C. Acquisition Strategy:** Competitive development based on performance specifications.

# ARMY RDT&E COST ANALYSIS(R3)

February 2004

**BUDGET ACTIVITY**  
**5 - System Development and Demonstration**

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT System Dev & Demo	CPIF	Gen Dynamics Decision Systems, Orlando, FL	6983	5754	1-3Q	770	1-3Q	357	1-3Q	Continue	Continue	Continue
Subtotal:			6983	5754		770		357		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Engineering & Technical Support	Multiple	Various	587	741	1-4Q	827	1-4Q	492	1-4Q	Continue	2647	Continue
Subtotal:			587	741		827		492		Continue	2647	Continue

# ARMY RDT&E COST ANALYSIS(R3)

February 2004

**BUDGET ACTIVITY**  
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT TEMP Support	Various	Multiple	90	104	1-2Q	125	1-4Q	50	1-2Q	Continue	Continue	Continue
b . IEWTPT Operational Test Event Support	Various	Multiple	87	103	1-3Q	236	1-3Q	98	1-2Q	0	524	0
c . Test Engineer Support	MIPR	NAVAIR Orlando (was NAWC-TSD)	84	100	1-4Q	60	1-4Q	65		0	309	0
Subtotal:			261	307		421		213		Continue	Continue	Continue

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Program Management	Various	Multiple	413	226	1-4Q	233	1-4Q	130	1-4Q	Continue	Continue	Continue
Subtotal:			413	226		233		130		Continue	Continue	Continue

Project Total Cost:			8244	7028		2251		1192		Continue	Continue	Continue
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# Schedule Profile (R4 Exhibit)

February 2004

BUDGET ACTIVITY  
**5 - System Development and Demonstration**

PE NUMBER AND TITLE  
**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

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Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09															
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4												
TCC Development /Integration																																												
Annual Security Accreditation																																												
Operational Test Event																																												
(1) MS C																																												
MR/IOC Ft. Huachuca																																												
Annual Security Accreditation																																												
Annual Test event																																												
Production Contract Award																																												
Annual Security Accreditation																																												
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FOC																																												
Annual Security Accreditation																																												

## Schedule Detail (R4a Exhibit)

**February 2004**

**BUDGET ACTIVITY**  
**5 - System Development and Demonstration**

**PE NUMBER AND TITLE**  
**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

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<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
IEWTPT CONTRACT AWARD	1-2Q						
IEWTPT Operational Test			1Q				
IEWTPT Milestone C		4Q					
IEWTPT Material Release			1Q				

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2004

BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604742A - CONSTRUCTIVE SIMULATION                  SYSTEMS DEVELOPMENT</b>						PROJECT <b>362</b>		
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
362      WARFIGHTER SIMULATION	36645	14567	41677	32349	23726	21949	21110	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** This Project funds the development of Warfighter Simulation (WARSIM), the Army's premier wargaming simulation for training leaders and battlestaffs at Division, Corps, and echelons above Corps. WARSIM will interoperate with OneSAF and other simulations as an integral part of Army Constructive Training Federation (ACTF), so that a warfighter training exercise can represent in simulation all Army echelons and in a joint environment. WARSIM will provide functionality not currently available (digital operations, stability and support operations, information ops), link to unit organic C4I equipment, improve exercise generation and after-action reporting. The FY05 funding continues the development of the Army training system, integration and system evaluation. ACTF leverages the best pieces of current systems to meet current training needs and evolves to meet the training needs of the future force.

This system supports the Future transition path of the Transformation Campaign Plan (TCP).

<b>Accomplishments/Planned Program</b>	FY 2003	FY 2004	FY 2005
Completed the software development and integration of WARSIM to provide Joint training capability for JSIMS Version 1.0 and support of JSIMS user demonstration.	10855	0	0
Completed software development and integration of Joint Tactical Intelligence Model (JTIM) within JSIMS.	5382	0	0
Verify and Validate WARSIM software models	823	1178	3632
Develop and integrate JSIMS Common Component Work Station (CCWS) and system Technical Control improvements.	1544	0	0
Continue the software development of WARSIM and integration of ACTF components for interoperability.	13554	8607	23518
Develop user interface enhancements for Army training applications.	2450	2706	9079
Develop and evaluate system performance and conduct system test events	2037	1766	5448
Small Business Innovative Research/Small Business Technology Transfer Programs	0	310	0
<b>Totals</b>	<b>36645</b>	<b>14567</b>	<b>41677</b>

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<b>B. Other Program Funding Summary</b>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
Other Procurement, Army, NSTD Command & Control (NA0103)	0	0	10788	57429	51156	1871	18441	Continuing	Continuing

**C. Acquisition Strategy:** Competitive development based on performance specifications.

# ARMY RDT&E COST ANALYSIS(R3)

February 2004

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . JSIMS Land Component Systems Development	C/CPAF	Lockheed Martin Info Sys, Orlando FL	35668	8920	1-3Q	0		0		0	44588	0
b . JTIM Systems Development	C/CPAF	Veridian Sys Solutions, Orlando FL	6723	5696	1-3Q	0		0		0	12419	0
c . JSIMS CCWS and Tech Control	C/CPAF	Lockheed Martin Info Sys, Orlando	7338	1256	1Q	0		0		0	8594	0
d . WARSIM Development of Army Training System	C/CPAF	Lockheed Martin Info Sys, Orlando FL	0	9320	2-3Q	10267	1-3Q	21093	1-3Q	Continue	Continue	Continue
e . Integration of ACTF	C/CPAF	TBD	0	0		0		7976	1Q	Continue	Continue	Continue
Subtotal:			49729	25192		10267		29069		Continue	Continue	Continue

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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**5 - System Development and Demonstration**

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II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Engineering & Tech Spt	Multiple	Various	2394	2714	1-4Q	1110	1-4Q	2580	1-4Q	Continue	Continue	Continue
Subtotal:			2394	2714		1110		2580		Continue	Continue	Continue

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Verification, Validation and Accreditation	Multiple	Various	928	991	1-3Q	309	1-3Q	3082	1-3Q	Continue	Continue	Continue
b . WARSIM System Evaluation and Test	Multiple	Various	2606	3472	1-2Q	189	1-3Q	1795	1-3Q	Continue	Continue	Continue
Subtotal:			3534	4463		498		4877		Continue	Continue	Continue

# ARMY RDT&E COST ANALYSIS(R3)

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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management	Multiple	Various	4308	4032	1Q	2613	1-2Q	4957	1-2Q	Continue	Continue	Continue
b . Cost Analysis Support	T&M	Northrup Grumman-TASC, Orlando FL	170	244	2-3Q	79	2-3Q	194	2-3Q	Continue	Continue	Continue
Subtotal:			4478	4276		2692		5151		Continue	Continue	Continue
Project Total Cost:			60135	36645		14567		41677		Continue	Continue	Continue

# Schedule Profile (R4 Exhibit)

February 2004

BUDGET ACTIVITY  
**5 - System Development and Demonstration**

PE NUMBER AND TITLE  
**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

PROJECT  
**362**

Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																
JSIMS VRM 1.0																																																																
JSIMS Block 1 completion																																																																
Army AoA decision																																																																
New Army Approach to Readiness Training Requirements																																																																
(1) Army Constructive Training Federation (ACTF) V1																																																																
(2) WARSIM ACTF Proof of Principle																																																																
(3) WARSIM integrated into ACTF Version 3																																																																
(4) WARSIM Block 1																																																																

## Schedule Detail (R4a Exhibit)

**February 2004**

**BUDGET ACTIVITY**  
**5 - System Development and Demonstration**

**PE NUMBER AND TITLE**  
**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

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<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Award WARSIM System Development Contract	1-3Q						
JSIMS Version 1.0 Release	1Q						
Closeout JTIM Contract	4Q						