

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604□42A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	16475	41153	40572	38818	31446	26888	23317	24116	Continuing	Continuing
361 INTELLIGENCE SIMULATION SYSTEMS	2202	1155	5909	6948	6029	5549	4111	4698	Continuing	Continuing
362 WARFIGHTER SIMULATION	14273	39998	34663	31870	25417	21339	19206	19418	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 D361 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) products based on realistic ISR assets, people (including the maneuver commander, G-2, G-3, collection manager, 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 FY06 and FY07 funding continues product improvements with annual spiral releases of the IEWTPT. Project 362, Warfighters' Simulation (WARSIM) develops the Army's premier wargame simulation for training leaders and Battle Staffs 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 One Semi Automated Forces (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. 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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DEVELOPMENT****B. Program Change Summary**

	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2005)	42869	33576	24750
Current Budget (FY 2006/2007 PB)	41153	40572	38818
Total Adjustments	-1716	6996	14068
Net of Program/Database Changes			
Congressional Program Reductions	-663		
Congressional Rescissions			
Congressional Increases	39		
Reprogrammings			
SBIR/STTR Transfer	-1092		
Adjustments to Budget Years		6996	14068

FY06 increase (\$6996K) and FY07 increase (\$14068K) support the Intelligence Electronic Warfare Tactical Proficiency Trainer and Warfighters' Simulation.

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SYSTEMS DEVELOPMENT**

PROJECT

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COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
361 INTELLIGENCE SIMULATION SYSTEMS	2202	1155	5909	6948	6029	5549	4111	4698	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) products based on realistic ISR assets, people (including the maneuver commander, G-2, G-3, collection manager, analyst/operator) and processes. IEWTPT provides embedded training capability for Future Combat Systems (FCS) ISR systems. IEWTPT interoperates with the Army's constructive simulation training systems and actual operator level field equipment identified as Target Signature Arrays. 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 FY06 and FY07 funding continues product improvements with annual spiral releases in the 4th Quarter of each year of the IEWTPT.

Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
FY04-FY07: Continues IEWTPT development, systems engineering support, documentation, security accreditation, and improvements with interoperability testing with system Target Signature Arrays (TSA) and constructive simulations.	1547	967	5088	6102
FY04-FY07: Continues IEWTPT Program Management support	221	188	394	413
FY04 and FY06-FY07: Continues IEWTPT Test planning and execution.	434	0	427	433
Totals	2202	1155	5909	6948

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BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604 42A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT				PROJECT 361	
<u>B. Other Program Funding Summary</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, Appropriation NA0102, NSTD Intelligence	0	0	3716	4895	3961	1262	1282	2147	Continuing	Continuing
<u>C. Acquisition Strategy:</u> Competitive development based on performance specifications.										

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604□42A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT					PROJECT 361		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT System Dev & Demo	CPIF	Gen Dynamics C4 Systems, Orlando, FL	13790	637	1-3Q	4694	1-3Q	5561	1-3Q	Continue	Continue	Continue
b . IEWTPT System Dev & Demo	multiple	various	0	330	1-4Q	394	1-4Q	541	1-4Q	Continue	Continue	Continue
Subtotal:			13790	967		5088		6102		Continue	Continue	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Engineering & Technical Support	Multiple	Various	1943	0		0		0		0	1943	1943
Subtotal:			1943	0		0		0		0	1943	1943

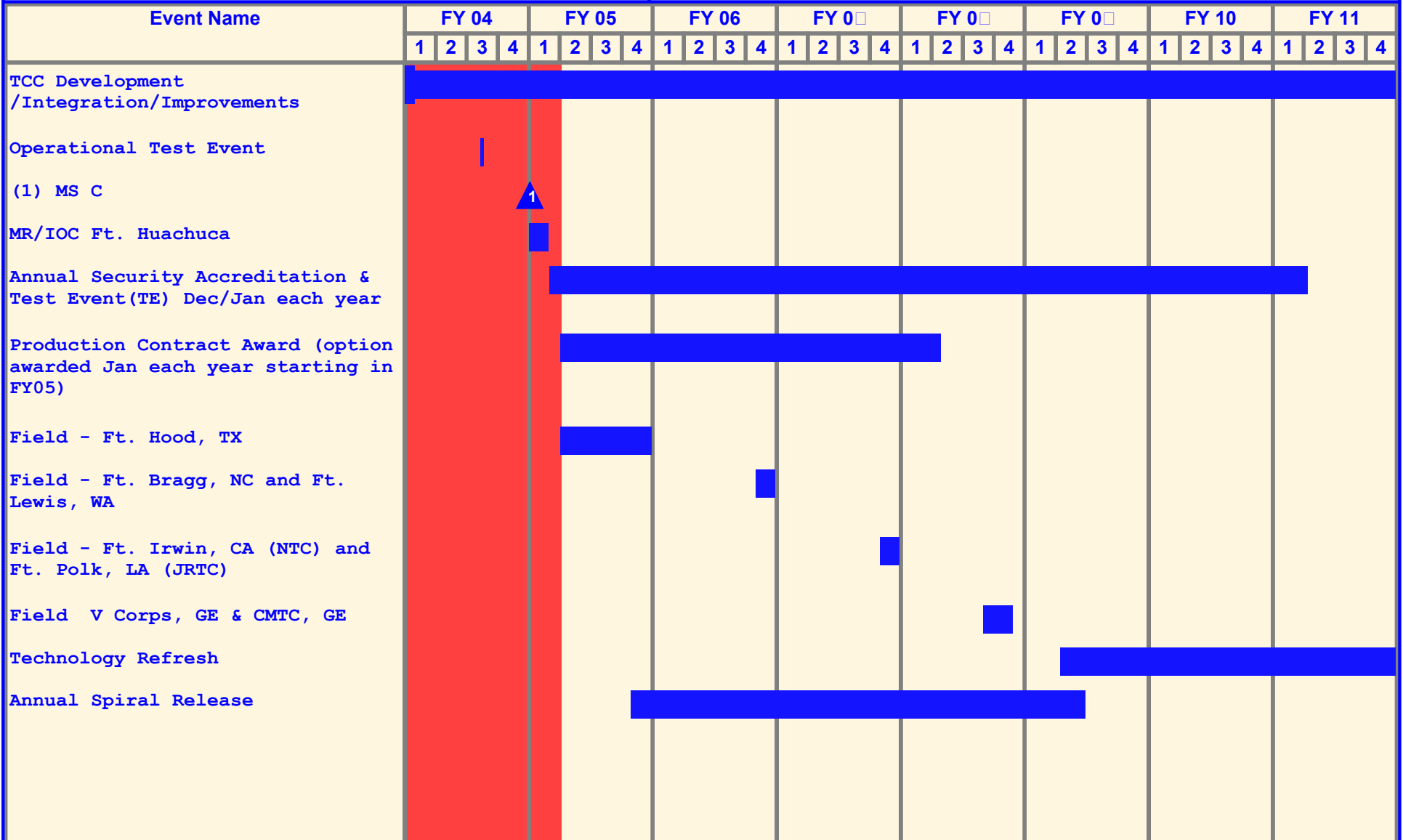
ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604 42A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT					PROJECT 361		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT TEMP Support	Various	Multiple	319	0		0		0		0	319	319
b . IEWTPT Operational Test Event Support	Various	Multiple	359	0		0		0		0	359	359
c . Test Engineer Support	various	Multiple	324	0		427	1-4Q	433	1-4Q	Continue	Continue	Continue
Subtotal:			1002	0		427		433		Continue	Continue	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Program Management	Various	Multiple	860	188	1-4Q	394	1-4Q	413	1-4Q	Continue	Continue	Continue
Subtotal:			860	188		394		413		Continue	Continue	Continue
Project Total Cost:			17595	1155		5909		6948		Continue	Continue	Continue

Schedule Profile (R4 Exhibit)

February 2005

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Schedule Detail (R4a Exhibit)						February 2005		
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604 42A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT				PROJECT 361	
<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
IEWTPT CONTRACT AWARD	1-4Q	1-3Q	1-3Q	1-3Q	1-3Q	1-3Q	1-3Q	1-3Q
IEWTPT Operational Test	3Q							
IEWTPT Milestone C		1Q						
IEWTPT Annual spiral releases		4Q	4Q	4Q	4Q	4Q		
IEWTPT Material Release		1Q						

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BUDGET ACTIVITY

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**0604 42A - CONSTRUCTIVE SIMULATION
SYSTEMS DEVELOPMENT**

PROJECT

362

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
362 WARFIGHTER SIMULATION	14273	39998	34663	31870	25417	21339	19206	19418	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 Battle Staffs at Division, Corps, and echelons above Corps. WARSIM will interoperate with One Semi Automated Forces (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 Command, Control, Communications, Computers and Intelligence equipment, improve exercise generation and after-action reporting. The FY06 and FY07 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.

Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
Verify and Validate ACTF software models	1342	3200	2773	2550
Continue integration of WARSIM and ACTF components for interoperability.	8433	23998	20798	19122
Develop and integrate user interface enhancements for Army training applications.	2811	8000	6932	6374
Develop and evaluate system performance and conduct system test events.	1687	4800	4160	3824
Totals	14273	39998	34663	31870

B. Other Program Funding Summary: Not applicable for this item.

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

ARMY RDT&E COST ANALYSIS(R3)

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . WARSIM Development of Army Training System	C/CPAF	Lockheed Martin Info Systems, Orlando, FL	18462	23712	1-3Q	17717	1-3Q	16097	1-3Q	Continue	Continue	Continue
b . Integration of ACTF	Multiple	Various	1281	7199	1Q	9246	1Q	6957	1Q	Continue	Continue	Continue
Subtotal:			19743	30911		26963		23054		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Engineering & Tech Spt	Multiple	Various	5164	445	1-4Q	420	1-4Q	473	1-4Q	Continue	Continue	Continue
Subtotal:			5164	445		420		473		Continue	Continue	Continue

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Verification, Validation and Accreditation	Multiple	Various	3409	2724	1-3Q	1951	1-3Q	3040	1-3Q	Continue	Continue	Continue
b . WARSIM System Evaluation and Test	Multiple	Various	7229	2207	1-3Q	1828	1-3Q	1940	1-3Q	Continue	Continue	Continue
Subtotal:			10638	4931		3779		4980		Continue	Continue	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management	Multiple	Various	9493	3711	1-2Q	3501	1-2Q	3363	1-2Q	Continue	Continue	Continue
b . Cost Analysis Support	T&M	Northrup Grumman-TASC, Orlando FL	414	0		0		0		0	414	493
Subtotal:			9907	3711		3501		3363		Continue	Continue	Continue
Project Total Cost:			45452	39998		34663		31870		Continue	Continue	Continue

Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY











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Event Name	FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
	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) Army Constructive Training Federation (ACTF) V1																																
(2) ACTF V2																																
(3) WARSIM Initial Capabilities Event																																
(4) WARSIM integrated into ACTF Version 3, (5) ACTF V3, (6) ACTF V4																																
(7) ACTF V5																																
(8) ACTF V6																																
(9) ACTF V7																																
(10) ACTF V8																																

Schedule Detail (R4a Exhibit)									
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