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

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - Engineering and manufacturing development	**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

COST (In Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	0	65613	53294	31297	10691	9231	7312	Continuing	Continuing
361	INTELLIGENCE SIMULATION SYSTEMS	0	4165	7518	741	1241	1277	1276	Continuing	Continuing
362	WARFIGHTER SIMULATION	0	61448	45776	30556	9450	7954	6036	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program element funds the engineering development of constructive and wargame simulations used to realistically train commanders and their battlestaffs on today's complex battlefield conditions. Project 361 funds the engineering development of systems to train Army military intelligence analysts. In FY03, the funding continues the development of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT), which will provide Battle Command training by creating a realistic intelligence information environment that is exploited and reported by Military Intelligence (MI) soldiers to battle commanders and staff. 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 replace the current legacy systems Corps Battle Simulation (CBS), Tactical Simulation (TACSIM), and integrate Combat Service Support/Tactical Simulation System (CSS/TSS) for full logistics function. It also develops the Land component for the Joint Simulation System (JSIMS). WARSIM will provide functionality not currently available (digital operations, stability and support operations, information ops), link to unit organizational C4I equipment, improve exercise generation and after-action reporting, and significantly reduce the number of role players required to support training exercises, thus reducing operational costs. The FY03 funding supports the completion of software models for WARSIM Version 2.0 and continues development of WARSIM Version 3.0. This system supports the Objective path of the Transformation Campaign Plan (TCP). Note that these projects transferred beginning in FY02 from PE 604715A, Projects 241 and 396.

B. Program Change Summary	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	0	66164	47051
Appropriated Value	0	66164	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-551	0
Adjustments to Budget Years Since FY2002 PB	0	0	6243
Current Budget Submit (FY 2003 PB)	0	65613	53294

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CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

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BUDGET ACTIVITY **5 - Engineering and manufacturing development**	PE NUMBER AND TITLE **0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**

This Program Element was established and the program funding transferred from PE 0604715A, Projects 241 and 396 in FY02.

FY03 additional funds ($6,243M) provided by the Army supports the Intelligence Electronic Warfare (IEW) Tactical Proficiency Trainer (IPT) in project 361.

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CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

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

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - Engineering and manufacturing development	**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**	**361**

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
361 INTELLIGENCE SIMULATION SYSTEMS	0	4165	7518	741	1241	1277	1276	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project funds the engineering development of systems to realistically train Army military intelligence analysts. In FY03, the funding continues the development of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT), which will provide Battle Command training by creating a realistic intelligence information environment that is exploited and reported by Military Intelligence (MI) soldiers to battle commanders and staff.

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

FY 2001 Accomplishments:

        Program funded under PE 0604715A, proj 241.

FY 2002 Planned Program

- 2432   Continue development of IEWTPT.
- 517   Target Signature Array (TSA) definition and continue integration of IEWTPT with WARSIM/WIM.
- 369   Early user interface at Fort Huachuca for continuous user feedback.
- 847   Systems engineering and Security accreditation.

Total   4165

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INTELLIGENCE SIMULATION SYSTEMS

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| BUDGET ACTIVITY
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**0604742A - CONSTRUCTIVE SIMULATION
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FY 2003 Planned Program

- 6273   Continue development of IEW TPT.
- 420   Continue early user interface at Ft. Huachuca for continuous user feedback.
- 304   Continue integration of IEWTPT with WARSIM/WIM.
- 115   Continue Security accreditation.
- 406   Developer/Operator/Maintainer training.

Total   7518

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INTELLIGENCE SIMULATION SYSTEMS

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

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BUDGET ACTIVITY **5 - Engineering and manufacturing development**	PE NUMBER AND TITLE **0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**	PROJECT **361**

B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
OPA3, Appropriation NA0101, NSTD, Manuever/Close Combat	105801	77730	61488	62363	200097	115517	95505	Continuing	Continuing
RDTE, PE 0604715, Project 241	48899	27685	42446	61239	51787	39514	48107	Continuing	Continuing

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

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
IEWTPT CONTRACT AWARD		1Q	1Q	1Q	1Q	1Q	1Q
IEWTPT Milestone C				2Q			

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INTELLIGENCE SIMULATION SYSTEMS

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ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

PROJECT
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT EMD	C/CPIF/FFP	Motorola Inc., Scottsdale, AZ	0	0		2852	1Q	6273	1Q	Continue	Continue	Continue
Subtotal:			0	0		2852		6273		Continue	Continue	Continue

Remarks: This program transferred from PE 604715A, Project D241 in FY02.

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Engineering Support	Multiple	Various	0	0		306	1Q	345	1Q	Continue	Continue	Continue
b . IEWTPT Other Support Costs	Multiple	Various	0	0		136	1Q	150	1Q	0	286	0
Subtotal:			0	0		442		495		Continue	Continue	Continue

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INTELLIGENCE SIMULATION SYSTEMS

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Exhibit R-3
Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3)

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BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

PROJECT
361

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Development Test	Various	Multiple	0	0		180	1Q	200	1Q	Continue	Continue	Continue
Subtotal:			0	0		180		200		Continue	Continue	Continue

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IEWTPT Program Management	Various	Multiple	0	0		691	1Q	550	1Q	Continue	Continue	Continue
Subtotal:			0	0		691		550		Continue	Continue	Continue
Project Total Cost:			0	0		4165		7518		Continue	Continue	Continue

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INTELLIGENCE SIMULATION SYSTEMS

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Cost Analysis

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - Engineering and manufacturing development	0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	362

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
362 WARFIGHTER SIMULATION	0	61448	45776	30556	9450	7954	6036	Continuing	Continuing

A. Mission Description and Budget Item Justification: This Project funds the engineering 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 replace the current legacy systems Corps Battle Simulation (CBS), Tactical Simulation (TACSIM), and Combat Service Support/Tactical Simulation System (CSS/TSS). It also develops the Land component for the Joint Simulation System (JSIMS). 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, and significantly reduce the number of role players required to support training exercises, thus reducing O&M costs. The FY03 funding supports the completion of software models for WARSIM Version 2.0 and continues development of WARSIM Version 3.0.

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

FY 2001 Accomplishments:

    Program funded under PE 0604715A, projects 241 and 396.

FY 2002 Planned Program

• 40660 Complete the software development, integration and release of WARSIM Build III (IOC), Increments 4 & 5; continue software development and integration of WARSIM Build III, increment 6.

• 6388 Continue software development, integration and release of WARSIM Intelligence Model (WIM) within JSIMS and WARSIM Version 1.0.

• 6152 Develop and integrate JSIMS Common Component Work Station (CCWS) and system Technical Control improvements.

• 8248 Procure additional equipment needed for the Operational Test Corps/Div suite for National Simulation Center and the Brigade/Battalion suite for FT Hood, which will support the JSIMS multi-service operational test event.

Total 61448

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		February 2002
BUDGET ACTIVITY **5 - Engineering and manufacturing development**	PE NUMBER AND TITLE **0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**	PROJECT **362**

FY 2003 Planned Program

- 34684   Complete the software development and integration of WARSIM Build III (IOC), Increment 6; continue software development and integration of WARSIM Build III, increment 7.
- 2787   Procure balance of the equipment needed for the Operational Test Corps/Div suite for National Simulation Center and the Brigade/Battalion suite for FT Hood, which will support the JSIMS multi-service operational test event.
- 2370   Continue software enhancements, integration and release of WARSIM Intelligence Model (WIM) within JSIMS and WARSIM Version 1.0.
- 5935   Develop JSIMS common component work station and system technical control improvements.

Total   45776

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

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - Engineering and manufacturing development	**0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**	**362**

B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
RDTE,A 0604715A Non system Training Devices Engineering Development, 241	48899	27685	42446	61239	51787	39514	48107	Continuing	Continuing
RDTE,A 0604715A Non system Training Devices Engineering Development, 396	19717	0	0	0	0	0	0	0	32035
OPA3 Appropriation NA0100, Training Devices, Nonsystem	115866	125503	11162	154409	286731	169468	151440	Continuing	Continuing

This PE was established and funding transferred from PE 0604715A, 241 and 396. The OPA3 project funds the production and fielding of WARSIM world-wide.

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

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Award WARSIM System Development Contract		1Q	1Q	1Q	1Q	1Q	1Q
Award WIM System Development Contract		1Q					
Award WIM System Software Support Contract		2-3Q	2Q	2Q	2Q	2Q	2Q
Army Functional Assessments		2-3Q	1Q	2Q	2Q	2Q	
WARSIM/JSIMS Version 1.0 Release		3Q					
WARSIM /JSIM joint functional assessment		3Q					
Milestone C/System Materiel Release			1Q				

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WARFIGHTER SIMULATION

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ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. WARSIM EMD	C/CPAF	Lockheed Martin Info Sys, Orlando FL	0	0		31992	1Q	25219	1Q	Continue	Continue	Continue
b. WIM EMD	C/CPAF	Veridian Inc, Orlando FL	0	0		6130	1Q	0	1Q	Continue	Continue	Continue
c. WIM EMD (Enhancements/Integrations)	TBD	TBD	0	0		0	2-3Q	3370	2Q	Continue	Continue	Continue
d. JSIMS CCWS and Tech Control	C/CPAF	Lockheed Martin Info Sys, Orlando	0	0		6152	1Q	5935	1Q	0	12087	0
Subtotal:			0	0		44274		34524		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Engineering & Tech Spt	C/CPFF	MITRE FFRDC	0	0		971	1Q	970	1Q	Continue	Continue	Continue
b. Data Mgt Repository	C/CPFF	Veridian, Orlando FL	0	0		316	1Q	0		0	316	0
c. Software Engineering	C/CPFF	AST, Orlando FL	0	0		1750	1Q	1028	1Q	Continue	Continue	Continue
d. Functional Description of the Battlespace	Multiple	Various	0	0		4700	1Q	2930	1Q	Continue	Continue	Continue

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ARMY RDT&E COST ANALYSIS(R-3)								**February 2002**				
BUDGET ACTIVITY **5 - Engineering and manufacturing development**					PE NUMBER AND TITLE **0604742A - CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT**						PROJECT **362**	

II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
e . WARSIM IPT	Multiple	Various	0	0		1849	1Q	1200	1Q	Continue	Continue	Continue
f . WIM Support	TBD	TBD	0	0		1100		1100	2-3Q	0	2200	0
Subtotal:			0	0		10686		7228		Continue	Continue	Continue

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Army Functional Assessments	Multiple	Various	0	0		1814	1Q	845	1Q	Continue	2659	Continue
b . Verification, Validation and Accreditation	Multiple	Various	0	0		1614	1Q	900	1Q	Continue	2514	Continue
Subtotal:			0	0		3428		1745		Continue	5173	Continue

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WARFIGHTER SIMULATION

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5 - Engineering and manufacturing development

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PROJECT
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management	Multiple	Various	0	0		2795	1Q	2109	1Q	Continue	Continue	Continue
b . Cost Analysis Support	C/CPFF	Adv Sys Tech, Inc., Orlando FL	0	0		265	1Q	170	1Q	Continue	Continue	Continue
Subtotal:			0	0		3060		2279		Continue	Continue	Continue
Project Total Cost:			0	0		61448		45776		Continue	Continue	Continue

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WARFIGHTER SIMULATION

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