DATE: June 2001 Exhibit R-2, RDT&E Budget Item Justification APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE RDT&E, Defense-Wide/07 C4I Interoperability/PE 0208045K FY00 FY01 FY02 COST (in millions) Cost to Total Complete Cost Total Program Element 25.999 35.672 41.389 Conta Conta 16.954 25.990 30.298 Test and Evaluation/T30 Conta Conta Major Range Test Facility 9.045 9.682 11.091 Conta Conta Base (MRTFB)/T40

A. <u>Mission Description and Budget Item Justification</u>: Provides life cycle test, evaluation, certification and technical support for all DoD National Security Systems/Information Technology Systems (NSS/ITS) to assure the warfighter that the Commander in Chief (CINC), Service, and Agency systems are effectively interoperable, compatible and integrated in a joint and combined environment. Serves as the Operational Test Agency (OTA) to test/certify the operational effectiveness and suitability of the Defense Information Systems Network (DISN), Defense Message System (DMS), Global Command and Control System (GCCS), Global Combat Support System (GCSS), and other systems managed or procured by the Defense Information Systems Agency. Functions as a member of DoD's Major Range and Test Facility Base (MRTFB). This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07 RDT&E, Dune 2001 RDTE: June 2001 RDTE: June 2001

B. Program Change Summary:

	<u>FY00</u>	<u>FY01</u>	FY02
Previous President's Budget (FY 2001) Appropriated Value	23.629 27.366	37.072 37.072	37.815
Adjustments to Appropriated Value	-1.367	-1.400	
Adjustments to Budget Year Since FY 2001 President's Budget			3.574
Current Budget Submit/President's Budget (FY 2002)	25.999	35.672	41.389

Change Summary Explanation:

FY 2000 change is due to below threshold reprogramming.

FY 2001 adjustments are due to Congressional rescission and below threshold reprogramming.

FY 2002 adjustments are due to revised fiscal guidance and a departmental initiative providing funds for the Joint Distributed Engineering Plant (JDEP).

Exhi	bit R-2a	, RDT&E P	roject Ju	stificatio	on			DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		GRAM ELEME Interoper		PE 0208045	K		r NAME AN nd Evalua			
COST (in millions)	FY00	FY01	FY02			·			Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298						Contg	Contg

A. Mission Description and Budget Item Justification: This project provides direct test funds to support test and evaluation requirements of DoD Directive 4630.5 and DoD Directive 5000 series. Provides life cycle test, evaluation, certification and technical support for all DoD National Security Systems/Information Technology Systems (NSS/ITS) to assure the warfighter that the Commander in Chief (CINC), Service, and Agency systems are effectively interoperable, compatible and integrated in a joint and combined environment. Serves as the Operational Test Agency (OTA) to test/certify the operational effectiveness and suitability of the Defense Information Systems Network (DISN), Defense Message System (DMS), Global Command and Control System (GCCS), Global Combat Support System (GCSS), and other systems managed or procured by the Defense Information Systems Agency.

FY 2000 Accomplishments:

o Provided Operational Test and Evaluation (OT&E) of systems acquired, assigned or managed by the Defense Information Systems Agency (DISA) to determine if the systems meet users' requirements through evaluation in their true operational environment using real users as operators. Conducted OT&E of Global Command and Control System (GCCS) 4.0 and Joint Operation Planning and Execution System (JOPES) 2000, which is a component of GCCS, to ensure operational requirements are met in a real operational environment; provided assistance in identifying and developing the Global Combat Support System (GCSS) test strategy, drafting of Test and Evaluation Master Plan (TEMP) Part IV, developing GCSS system documentation; performed GCCS and GCSS functional tests to determine if the systems meet functional requirements; conducted interoperability test and certification between GCCS and Global Command and Control System-Maritime (GCCS-M) to ensure end-to-end interoperability between GCCS and the Navy/Marine version of GCCS; performed operational assessments of Defense Message System (DMS) release 2.2 and follow-on maintenance releases to ensure operational effectiveness and suitability; conducted DMS systems/interfaces functional tests to determine if DMS meets functional requirements; performed operational assessments of Defense Information Systems Network (DISN) Video Services to ensure operational effectiveness and suitability; test procedures and methodology for Defense Information Infrastructure (DII) Common Operating Environment (COE) compliance testing (Oct 1999 - Sep 2000; \$5.451M)

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Exhi	bit R-2a	, RDT&E P	roject Ju:	stificatio	on		DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		FRAM ELEME Interoper		E 0208045	K	 r NAME ANI nd Evaluat			
COST (in millions)	FY00	FY01	FY02					Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298					Contg	Contg

FY 2000 Accomplishments continued:

- o Conducted joint interoperability test and certification on DoD C4I systems to ensure end-to-end interoperability, compatibility and integration. Completed Tactical Data Information Link (TADIL) A/B/J certification tests, which include Joint Interoperability Test (JIT) plan and reports, development of status documents (REDBOOK) and conduct of Joint Analysis Review Panel (JARP) (for example: Joint Stars T-J, Patriot T-J, F-15E T-J, F18/MIDS (Multi Function Information Distribution System) LVT T-J, Joint Air Defense System Integrator (ADSI) T-J, E-2 GRP II T-J); US Message Text Format (USMTF) 2000 baseline messages, standards conformance test for Joint Message Preparation System (JMPS) version 3.0.0.0A, and test of messages for compliance to 2000 release of Military Standard-6040; certification testing of Navy communications systems in support of Navy transition to DMS; certification testing of joint C4I systems to ensure end-to-end interoperability, compatibility and integration, which include High Frequency Radio/Auto Link Establishment, Intelligence Systems, Inter-Theater COMSEC Project, Joint DII Communications System (JDIICS-D), Newbridge ATM, and MILSTAR Low Data Rate; DoD Interoperability Communications Exercise (DICE) employing over 20 systems to determine end-to-end interoperability of DoD major switch systems and the Joint User Switch Exercise (JUSE) (Oct 1999 Sep 2000; \$9.162M)
- o Provided on-site exercise support for 10 exercises (pre-exercise architecture review and analysis, architecture documentation, operational assessments, traffic loading and simulation, testing), which included All Services Combat Identification Evaluation Team (ASCIET), FOAL EAGLE, COBRA GOLD, TANDEM THRUST, BRIGHT STAR, UNIFIED ENDEAVOR/FUERTES DEFENSAS, INTERNAL LOOK, CROCODILE, LUCKY SENTINEL AND CABANAS; on-site exercise support to identify and resolve technical issues, identify uncertified and/or untested interfaces, and determine compliance with CJCSM 6231; technical assistance to Operation STABILIZE by assisting in the installation of E1 Trunk Interface between the US AN/TTC-39D tactical switch and the Australian NEC/NEAX 7400 ICS commercial switch; solutions to problems raised in hotline calls; published 4 issues of Lessons Learned Reports (Oct 1999 Sep 2000; \$2.341M)
- o Total \$16.954M

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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		GRAM ELEM Interoper		PE 0208045	K	 r NAME AN nd Evalua			
COST (in millions)	FY00	FY01	FY02					Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298					Contg	Contg

FY 2001 Plans:

- o Provide Operational Test and Evaluation (OT&E) of systems acquired, assigned or managed by the Defense Information Systems Agency (DISA) to determine if the systems meet users' requirements through evaluation in their true operational environment using real users as operators. Conduct OT&E of Global Command and Control System (GCCS) major releases to ensure operational requirements are met in a real operational environment; conduct GCCS and Global Combat Support System (GCSS) functional tests for 8-10 applications to determine if the systems meet functional requirements; interoperability test and certification between GCCS and Service versions of GCCS to ensure end-to-end interoperability; operational assessments of Defense Message System (DMS) software releases and follow-on maintenance releases to ensure operational effectiveness and suitability; conduct DMS functional tests for 20 systems/interfaces to determine if the system meets functional requirements; conduct operational assessments of Defense Information Systems Network (DISN) services and components to ensure operational effectiveness and suitability; perform OT&E of DISN Integrated Network Management System to ensure operational effectiveness and suitability; test procedures and methodology for Defense Information Infrastructure (DII) Common Operating Environment (COE) compliance testing (Oct 2000 Sep 2001; \$2.478M)
- o Conduct joint interoperability test and certification on DoD C4I systems to ensure end-to-end interoperability, compatibility and integration. Complete Tactical Data Information Link (TADIL) A/B/J certification tests (for example: Joint Stars T-J, Patriot T-J, F-15E T-J, F18/MIDS LVT T-J, Joint Air Defense System Integrator (ADSI) T-J, E-2 GRP II T-J); perform certification testing of Navy communications systems in support of Navy transition to DMS; perform certification testing of joint C4I systems to ensure end-to-end interoperability, compatibility and integration; conduct DoD Interoperability Communications Exercise (DICE) employing over 20 systems to determine end-to-end interoperability of DoD major switch systems (Oct 2000 Sep 2001; \$11.899M)

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Exhi	·							DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07				PE 0208045	K		r NAME AN nd Evalua			
COST (in millions)	FY00	FY01	FY02						Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298						Contg	Contg

FY 2001 Plans continued:

- o Implement Phase I of the Risk Mitigation Network, which will provide DoD with an off-line capability to test and resolve problems with systems that transport on or interface with the DISN (Oct 2000 Sep 2001; \$5.335M)
- o Provide on-site exercise support for 10 exercises (pre-exercise architecture review and analysis, architecture documentation, operational assessments, traffic loading and simulation, testing); on-site exercise support to identify and resolve technical issues, identify uncertified and/or untested interfaces, and determine compliance with CJCSM 6231; provide solutions to problems raised in hotline calls; publish 4 issues of Lessons Learned Reports (Oct 2000 Sep 2001; \$3.278M)
- o Provide combined interoperability test support to Commanders-in-Chief (CINCs) to ensure that U.S. and coalition systems will interoperate within the Joint Task Force (JTF) (Oct 2000 Sep 2001; \$3.000M)
- o Total \$25.990M

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Exhi	bit R-2a	, RDT&E Pi	roject Ju	stificatio	on			DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		FRAM ELEME Interoper		E 0208045	δK		r name an nd Evalua			
COST (in millions)	FY00	FY01	FY02			·			Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298						Contg	Contg

FY 2002 Plans:

- o Provide Operational Test and Evaluation (OT&E) of systems acquired, assigned or managed by the Defense Information Systems Agency (DISA) to determine if the systems meet users' requirements through evaluation in their true operational environment using real users as operators. Conduct OT&E of Global Command and Control System (GCCS) software versions and components to ensure operational requirements are met in a real operational environment; GCCS and Global Combat Support System (GCSS) functional tests for 8-10 applications to determine if the systems meet functional requirements; perform interoperability test and certification between GCCS and Service versions of GCCS to ensure end-to-end interoperability; conduct operational assessments of Defense Message System (DMS) software releases and follow-on maintenance releases to ensure operational effectiveness and suitability; conduct DMS functional tests for 20 systems/interfaces to determine if the system meets functional requirements; conduct operational assessments of Defense Information Systems Network (DISN) services and components to ensure operational effectiveness and suitability; perform OT&E of DISN Integrated Network Management System to ensure operational effectiveness and suitability; test procedures and methodology for Defense Information Infrastructure (DII) Common Operating Environment (COE) compliance testing (Oct 2001 Sep 2002; \$2.938M)
- o Conduct joint interoperability test and certification on DoD C4I systems to ensure end-to-end interoperability, compatibility and integration. Complete Tactical Data Information Link (TADIL) A/B/J certification tests (for example: Joint Stars T-J, Patriot T-J, F-15E T-J, F18/MIDS LVT T-J, Joint Air Defense System Integrator (ADSI) T-J, E-2 GRP II T-J); perform certification testing of Navy communications systems in support of Navy transition to DMS; perform certification testing of joint C4I systems to ensure end-to-end interoperability, compatibility and integration; conduct DoD Interoperability Communications Exercise (DICE) employing over 20 systems to determine end-to-end interoperability of DoD major switch systems (Oct 2001 Sep 2002; \$12.099M)

Exhi	bit R-2a	, RDT&E Pi	roject Ju	stificatio	on			DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		FRAM ELEME Interoper		E 0208045	δK		r name an nd Evalua			
COST (in millions)	FY00	FY01	FY02			·			Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298						Contg	Contg

FY 2002 Plans continued:

- o Continue to implement Phase I of the Risk Mitigation Network, which will provide DoD with an off-line capability to test and resolve problems with systems that transport on or interface with the DISN (Oct 2001 Sep 2002; \$5.500M)
- o Provide management of the Joint Distributed Engineering Plant (JDEP) to establish and enforce procedures, maintain scheduling, and provide problem resolution support to Service node network/connectivity. (Oct 2001 Sep 2002; \$3.220M)
- o Provide on-site exercise support for 10 exercises (pre-exercise architecture review and analysis, architecture documentation, operational assessments, traffic loading and simulation, testing); on-site exercise support to identify and resolve technical issues, identify uncertified and/or untested interfaces, and determine compliance with CJCSM 6231; provide solutions to problems raised in hotline calls; publish 4 issues of Lessons Learned Reports (Oct 2001 Sep 2002; \$3.541M)
- o Provide combined interoperability test support to Commanders-in-Chief (CINCs) to ensure that U.S. and coalition systems will interoperate within the Joint Task Force (JTF) (Oct 2001 Sep 2002; \$3.000M)
- o Total \$30.298M

Exhi	Exhibit R-2a, RDT&E Project Justification							DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		FRAM ELEME Interoper		E 0208045	δK		r NAME AN nd Evalua			
COST (in millions)	FY00	FY01	FY02			·			Cost to Complete	Total Cost
Project Cost	16.954	25.990	30.298						Contg	Contg

- B. Other Program Funding Summary: NA
- C. <u>Acquisition Strategy</u>: This project is supported by a competitively awarded, non-personal services contract composed of three prime contracts with multiple sub-contracts. The contracts, which are cost plus award fee, provide maximum flexibility on assignment of tasks for cost and technical effectiveness, and allow for expansion and contraction of staff years as workload expands and contracts.
- D. Schedule Profile:

FY 2000 - FY 2002

1st Quarter - 4th Quarter: Operational test and evaluation of C4I systems managed and/or procured by the Defense Information Systems Agency such as: Global Command and Control System (GCCS), Global Combat Support System (GCSS), Defense Message System (DMS), and Defense Information Systems Network (DISN); Tactical Data Information Link (TADIL) A/B/J certification tests to ensure interoperability among air defense systems; joint and combined interoperability tests to ensure that DoD and coalition systems will interoperate in a joint and/or combined environment; conduct DoD Interoperability Communications Exercise (DICE); implementation of C4I Risk Mitigation Network, which provides DoD with an off-line capability to test and resolve problems on systems that transport on or interface with the Defense Information System Network (DISN); establish management of the Joint Distributed Engineering Plant (JDEP) to provide a hardware-in-the-loop environment to identify, evaluate, isolate, and find solutions to Joint Force interoperability problems; provide CINC exercise support; identify solutions to operational problems such as: failure of a system to interoperate with another system when used in an operational environment; Lessons Learned Reports to document problems and fixes to those problems for distribution to the Commanders-in-Chief (CINCs) and Services; provide on-site support for real-world contingencies such as: Bosnia, Kosovo, and Haiti.

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Exhibit R-3 Cost Analys	sis									DATE:	June 2001
APPROPRIATION/BUDGET A	CTIVITY	PROGRAM C4I Inte			/PE 020	PROJECT NAME AND N 208045K Test and Evaluation					
Test and Evaluation											
Cost Category	Method	Performing Activity & Location	Total PYs <u>Cost</u>	FY 01 Cost	FY 01 Award <u>Date</u>	FY 02 Cost	FY 02 Award <u>Date</u>	Cost To Complete	Total <u>Cost</u>	Target Value of <u>Contract</u>	
Engineering/Technical Services		TRW Ft Hua, AZ	6.994	1.769	03/01				8.763	8.763	
	CPAF/	Interop Ft Hua, AZ	7.138	6.727	03/01				13.865	13.865	
	CPAF/	Validity Ft Hua, AZ	8.244	1.441	03/01				9.685	9.685	
		TBD				13.617	TBD	TBD	TBD	TBD	
Subtotal Contracts				9.937		13.617					
In house				16.053		16.681					
Total Project				25.990		30.298					
NOTE: New OMNIBUS contracts will to	oe awarded i	n FY02.									
					Page 1	10 of 1	4				

Exhil	oit R-	2a, RDT&E P	roject Ju	stificatio	on		DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		ROGRAM ELEM I Interope:		PE 0208045	K	 I NAME AN Range Tes		y Base/T40	
COST (in millions)	FY00	FY01	FY02					Cost to Complete	Total Cost
Project Cost	9.04	5 9.682	11.091					Contg	Contg

A. Mission Description and Budget Item Justification: This project provides Institutional funds for DISA's Joint Interoperability Test Command (JITC), which is a member of DOD's Major Range Test Facility Base (MRTFB), in accordance with DoD Directive 3200.11 and letter dated 21 Jan 1992 designating JITC as a member of the MRTFB. Institutional funds cover costs that cannot be passed along to customers, such as test support expenses, testbed maintenance expenses, base operating support and facility and logistics support.

FY 2000 Accomplishments:

- o Maintained JITC's automated test and mission support systems to facilitate test and evaluation and maximize use of test assets; maintained internal project and resource management information systems to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; developed automated support for management of contracts, manpower and fiscal resources (Oct 1999 Sep 2000; \$2.142M)
- o Provided base operations support to JITC's testing mission (Oct 1999 Sep 2000; \$1.300M)
- o Maintained the JITC testbeds and test facilities at Fort Huachuca, AZ, and Indianhead, MD for DOD use (Oct 1999 Sep 2000; \$5.603M)
- o Total \$9.045M

Exhil	·								DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07				PE 0208045	K				y Base/T40		
COST (in millions)	FY00	FY01	FY02						Cost to Complete	Total Cost	
Project Cost	9.04	5 9.682	11.091						Contg	Contg	

FY 2001 Plans:

- o Maintain JITC's automated test and mission support systems to facilitate test and evaluation and maximize use of test assets; maintain internal project and resource management information systems to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; develop automated support for management of contracts, manpower and fiscal resources (Oct 2000 Sep 2001; \$2.361M)
- o Provide base operations support to JITC's testing mission (Oct 2000 Sep 2001; \$1.433M)
- o Maintain the JITC testbeds and test facilities at Fort Huachuca, AZ, and Indianhead, MD for DOD use (Oct 2000 Sep 2001; \$5.888M)
- o Total \$9.682M

FY 2002 Plans:

- o Maintain JITC's automated test and mission support systems to facilitate test and evaluation and maximize use of test assets; maintain internal project and resource management information systems to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; develop automated support for management of contracts, manpower and fiscal resources (Oct 2001 Sep 2002; \$2.417M)
- o Provide base operations support to JITC's testing mission (Oct 2001 Sep 2002; \$1.445M)

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Exhi	bit R-2a	, RDT&E P	roject Ju:	stificatio	on		DATE: Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		FRAM ELEME Interoper		E 0208045	K	 r name an Range Tes		y Base/T40	
COST (in millions)	FY00	FY01	FY02					Cost to Complete	Total Cost
Project Cost	9.045	9.682	11.091					Contg	Contg

FY 2002 Plans continued:

- o Maintain the JITC testbeds and test facilities at Fort Huachuca, AZ, and Indianhead, MD for DOD use (Oct 2001 Sep 2002; \$6.249M)
- o Provide connectivity and network maintenance for the Joint Distributed Engineering Plant (JDEP) Network Operations Center (Oct 2001 Sep 2002; \$.980M)
- o Total \$11.091M
- B. Other Program Funding Summary: NA
- C. <u>Acquisition Strategy</u>: This project is supported by a competitively awarded, non-personal services contract composed of three prime contracts with multiple sub-contracts. The contracts, which are cost plus award fee, provide maximum flexibility on assignment of tasks for cost and technical effectiveness, and allow for expansion and contraction of staff years as workload expands and contracts.
- D. Schedule Profile:

FY 2000 - FY 2002

 1^{st} Quarter - 4^{th} Quarter: Host Base Operations Support, MRTFB mandated cost accounting information systems, overhead supporting MRTFB, JDEP connectivity and maintenance, and testbed maintenance.

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Exhibit R-3 Cost Analysis										DATE: June 2001
APPROPRIATION/BUDGET A RDT&E, Defense-Wide/07	PROGRAM ELEMENT C4I Interoperability/PE 0208045K							PROJECT NAME AND NUMBER Major Range Test Facility Base/T40		
Major Range Test Facility Base (MRTFB)										
Cost Category		Performing Activity & <u>Location</u>	Total PYs <u>Cost</u>	FY 01 Cost	FY 01 Award <u>Date</u>	FY 02 Cost	FY 02 Award <u>Date</u>	Cost To Complete	Total <u>Cost</u>	Target Value of <u>Contract</u>
Engineering/Technical Services	CPAF/ C CPAF/ C CPAF/ C TBD	TRW Ft Hua, AZ Interop Ft Hua, AZ Validity Ft Hua, AZ TBD	.540	.203	03/01				.743	.743
			9.900	3.324	03/01				13.224	13.224
			1.611	.532	03/01				2.143	2.143
						5.178	TBD	TBD	TBD	TBD
Subtotal Contracts				4.059		5.178				
In-house				5.623		5.913				
Total Project				9.682		11.091				
NOTE: New OMNIBUS contracts will be awarded in FY02.										
					Page :	14 of :	14			