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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)	DATE February 2000
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603713A Army Data Distribution System
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COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	16084	10	17	24	33	41	49	6000	Continuing
D370 PJH-PLRS/JTIDS Hybrid	10168	10	17	24	33	41	49	6000	Continuing
D385 JTIDS (LINK 16)	5916	0	0	0	0	0	0	0	5916

A. Mission Description and Justification The Army Data Distribution System (ADDS) consists of the Near-Term Digital Radio System (NTDRS) and the Joint Tactical Information Distribution System (JTIDS)/Multifunctional Information Distribution System (MIDS) programs. The NTDRS program maximizes the use of non-development item (NDI) and commercial off-the-shelf (COTS) hardware and software. The program provides greatly enhanced data capacities at Tactical Operation Centers. NTDRS will provide the Army's Tactical Internet Tactical Operation Center to Tactical Operation Center (TOC-to-TOC) data distribution from Battalion to Brigade and for all mobile TOC platforms from division and below in the First Digitized Division and may serve as proof of concept leading to the integration of the NTDRS waveform/ network into the JTRS program. The Joint Tactical Information Distribution System (JTIDS) / Multifunctional Information Distribution System (MIDS), LINK-16 program is a joint/international program representing all services and allied force requirements with the purpose of complying with the ASD/C3I policy establishing Link-16 as the DOD primary tactical datalink for C2I and to acquire a digital information system for tactical interoperability and situation awareness. Currently the Army uses LINK-16 terminals in Air Defense platforms to control air and missile defense weapon engagement operations. This Program Element, Project D370 also provides support to the Joint Contingency Force (JCF) Exercise in FY2000.

B. Program Change Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (<u>FY 2000/2001 PB</u>)	15162	10	17
Appropriated Value	15281	10	
Adjustments to Appropriated Value			
a. Congressional General Reductions	-119		
b. SBIR / STTR	-393		
c. Omnibus or Other Above Threshold Increases	+179		
d. Below Threshold Reprogramming	+1196		
e. Rescissions			
f. Inflation decrements	-60		
Adjustments to Budget Years Since <u>FY 2000/2001 PB</u>			
Current Budget Submit (<u>FY 2001 PB</u>)	16084	10	17

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603713A Army Data Distribution System	PROJECT D370
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COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D370 PJH-PLRS/JTIDS Hybrid	10168	10	17	24	33	41	49	6000	Continuing

A. Mission Description and Justification: The Near-Term Digital Radio System (NTDRS) provides the Army's Tactical Internet TOC-to-TOC communication function for the First Digitized Division. In order to allow the NTDRS to evolve and make maximum use of technology insertion, NTDRS is based on an open architecture. The project will provide reliable, real time, secure, jam-resistant data communications and position location capabilities to the soldier and to his unit commander and may serve as the proof of concept leading to the integration of the NTDRS waveform/ network into the JTRS program. This Program Element, Project D370 also provides support to the Joint Contingency Force (JCF) Exercise in FY2000.

FY 1999 Accomplishments:

- 8486 Product Development – Engineering
 - 60 Support Costs – Integration and Logistics
 - 719 Test and Evaluation
 - 903 Management Services – Program/Contractor Support
- Total 10168

FY 2000 Planned Program:

- 10 NTDRS Logistics Support
- The balance of FY2000 NTDRS efforts are funded under PE 0604805A, Project D615.
- Total 10

FY 2001 Planned Program:

- 17 NTDRS Logistics Support
- Total 17

B. <u>Other Program Funding Summary</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
RDTE, 0604805A, D615*	0	4867	28542	79171	42117	62831	48317	80000	345905

* Funding in FY00 is to complete NTDRS program. Funding in FY2001-2005 is for the JTRS-Army program.

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C. Acquisition Strategy: The NTDRS program maximizes the use of non-developmental item (NDI) and commercial off-the-shelf (COTS) hardware and software. An RDT&E contract was awarded competitively in January 1996. The NTDRS was successfully tested at the Division XXI AWE in November 1997, Electronic Proving Ground (EPG) (Field Test I) in February 1998, and FBCB2 LUT in August 1998. In FY1999 NTDRS was successfully tested at EPG in Feb/Mar 1999 and participated in other experimental exercises, such as the Navy/USMC Urban Warrior and Navy Fleet Battle Experiment Echo. NTDRS successfully provided TOC-to-TOC data communications capability at the NTC-99-05 rotation in March 1999. This is the first digital data network to enable the ATCCS hosts to intercommunicate between Brigade and Battalion and fight the battle-on-the-move, covering a geographical area of over 1800 square kilometers using only 19 radios for the NTC-99-05. In FY2000 the NTDRS will participate in the FBCB2 Field Test II and Limited User Test to provide the Army's Tactical Internet TOC-TOC data communications. The NTDRS will also participate in the Joint Contingency Force (JCF) Army Warfighting Experiment (AWE) to provide TOC to TOC data communications in 4QFY2000. In FY 1999/2000 NTDRS will complete design and testing efforts before planned distribution to the FDD in late FY 2000 for continued experimentation purposes, and may serve as a proof of concept for wideband waveform development in support of the JTRS program.

D. Schedule Profile	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
NTDRS EPG Field Test II	2Q						
NTDRS FBCB2 FDT&E/LUTII		3Q					
NTDRS EPG FIELD TEST III		3/4Q					
NTDRS Participation in ABCS SE 00-01/02		1/4Q					
NTDRS JCF Army Warfighting Experiment		4Q					
NTDRS Complete FDD Deployment		4Q					

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603713A Army Data Distribution System	PROJECT D370
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. NTDRS Engineering Development/Hardware Manufacturing *	C/CPIF/FFP /TM	IIT, Ft. Wayne	33914	7410	1-4Q						41324	41688
b. NTDRS/NMT/ Antenna**	MISC	MISC	510	276	1-4Q						786	
c. INC NAV Upgrade for Tactical Internet Range – JCF*	C/T&M	IIT Ft. Wayne	0	800	4Q						800	800
Subtotal Product Development:			34424	8486							42910	

Remark.
 * Includes \$174K for Y2K and \$440 for Joint Contingency Force (JCF) efforts.
 ** This entry includes \$146K for JCF efforts.

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. NTDRS Frequency Network	MISC	MISC	207								207	
b. System Integration NDTRS	MIPR	C2SID		60	3Q						60	
c. NTDRS Logistics	TBD	TBD				10	TBD	17	TBD		27	
Subtotal Support Costs:			207	60		10		17			294	

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ARMY RDT&E COST ANALYSIS (R-3)

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603713A Army Data Distribution System	PROJECT D370
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. NTDRS Field Testing*	MIPR	EPG, Ft. Huachuca	3395	719	1-4Q						4114	
b. Misc. NTDRS Test Support	MIPR	TEXCOM	1								1	
c. Misc. NTDRS Test Support	MIPR	NTC	8								8	
Subtotal Test and Evaluation:			3404	719							4123	

Remark: * This entry includes \$5K for Y2K testing.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. NTDRS Program Support*	MIPR	Ft. Monmouth, NJ	3085	735	1-4Q						3820	
b. NTDRS Contractor Program Support	MIPR	MISC.	144	168	1-4Q						312	144
Subtotal Management Services:			3229	903							4132	

Remark: MIDS funding prior to FY1999 is contained in D370. FY1999 MIDS efforts are funded in D385.

Project Total Cost:			41264	10168		10		17			51459	
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*This entry includes \$14K JCF Funding

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603713A Army Data Distribution System	PROJECT D385
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COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D385 JTIDS (LINK 16)	5916	0	0	0	0	0	0	0	5916

A. Mission Description and Justification: The Joint Tactical Information Distribution (JTIDS)/Multifunctional Information Distribution System (MIDS)/LINK-16 portion of the ADDS program provides a joint and allied interoperable LINK-16 tactical digital data and voice comm link among air, ground surface and subsurface platforms. LINK-16 is the DoD directed standard for tactical communications of all processed data and is DoD's primary tactical data link for C2I. Link-16 supports the Army's Theater Air and Missile Defense Engagement Operations. The Army intends to migrate to the Multifunctional Information Distribution System (MIDS) through investment in an Army variant of that multi-national terminal.

FY 1999 Accomplishments:

- 246 Product Development
 - 1777 Support Costs
 - 1710 Testing and Evaluation
 - 2183 Management Services – Program, Logistics Support
- Total 5916

FY 2000 Planned Program: Project not funded in FY2000.

FY 2001 Planned Program: Project not funded in FY2001. Future MIDS efforts will be funded under BMDO funding lines.

B. Other Program Funding Summary: Procurement funding resides at BMDO/platform level.

C. Acquisition Strategy: The Multifunctional Information Distribution System (MIDS) program is a Navy managed joint services development program currently viewed as an eventual low cost replacement for parts of the Joint Tactical Information Distribution System (JTIDS) family of high speed data terminals. In FY1999/2000 MIDS will continue developmental and Limited User testing to support a projected FY2000 LRIP Decision and FY2000 LRIP award. FY1999 funding will be utilized in FY2000 to continue program and test efforts until LRIP award. There is no MIDS RDTE funding after FY1999.

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D. Schedule Profile	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
JTIDS Class 2M FRP Delivery	2Q						

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. JTC & Host Integration/cables	MIPR	MISC		93	*						93	
b. High Thruput/Demo		IPO		153	*						153	
Subtotal Product Dev:				246							246	

Remark: MIDS funding prior to FY1999 is contained in D370. FY1999 MIDS efforts are funded in D385.

* Awards made in FY99 and 1QFY00

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. System Engineering Support	C/TBD	LOGICON, NJ		236	**						236	
b. Software Support	C/FP	MITRE		895	*						895	
c. System Engineering	C/FP	LEAR/SIEGLER		109	**						109	
d. Software Support	MIPR	CECOM		350	**						350	
e. NET/TPF Planning	MIPR	CECOM		167	**						167	
f. System Support	MIPR	ARL/SLAD		20	*						20	
Subtotal Support Costs:				1777							1777	

Remark: MIDS funding prior to FY1999 is contained in D370. FY1999 MIDS efforts are funded in D385.

* Award that were made in 1QFY99 and 1QFY00

** Awards that will be made in 1Q/2QFY00

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. LUT	MIPR	OPTEC, Ft. Bliss		1273	4Q						1273	
b. EPG Test Witnessing	MIPR	EPG		255	*						255	
c. MIDS Test	MIPR	OEC		73	3Q						73	
d. LCUS for Test	PWD	PM, CHS		109	4Q						109	
Subtotal Test and Evaluation:				1710							1710	

Remark: MIDS funding prior to FY1999 is contained in D370. FY1999 MIDS efforts are funded in D385.
 * Obligated in FY99 and 1QFY00

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY1999 Cost	FY1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Program Support	MIPR	CECOM Ft.Monmouth		2011	*						2011	
b. Log/Tech Spt	C/FP	TRACOR, NJ		50	*						50	
c. Miscellaneous (TVL/Office supplies)	Various	PM TRCS		122	*						122	
Subtotal Management Services:				2183							2183	

Remark: MIDS funding prior to FY1999 is contained in D370.
 * Multiple award dates in FY99/00.

Project Total Cost:				5916							5916	
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Remark: MIDS funding prior to FY1999 is contained in D370. A portion of the FY1999 MIDS funding will be utilized in FY2000 to continue program and test efforts until LRIP award.