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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)	DATE February 1999
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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)	FY1998 Actual	FY 1999 Estimate	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	19785	15162	10	17	24	33	41	50	6000	41122
D370 PJH-PLRS/JTIDS Hybrid	19785	8903	10	17	24	33	41	50	6000	34863
D385 JTIDS (LINK 16)	0	6259	0	0	0	0	0	0	0	6259

A. Mission Description and Budget Item 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 is a Research and Development (R&D) Program that maximizes the use of non-development item (NDI) and commercial off-the-shelf (COTS) hardware and software. The program provides an interim solution to the long term Army need for 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 critical moving platforms from Brigade to Division 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.

B. Program Change Summary	FY 1998	FY 1999	FY 2000	FY 2001
Previous President's Budget (FY 1999 PB)	20526	17281	4638	13156
Appropriated Value	21214	15281		
Adjustments to Appropriated Value				
a. Congressional General Reductions	-688	-119		
b. SBIR / STTR	-482			
c. Omnibus or Other Above Threshold Reductions	-159			
d. Below Threshold Reprogramming	-100			
e. Rescissions				
Adjustments to Budget Years Since FY 1999 PB			-4628	-13139
Current Budget Submit (FY 2000 / 2001 PB)	19785	15162	10	17

Change Summary Explanation: FY 2000/2001 funds were moved to PE 0604280, D615.

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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 (<i>In Thousands</i>)	FY1998 Actual	FY 1999 Estimate	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	19785	8903	10	17	24	33	41	50	6000	34863

A. Mission Description and Budget Item Justification : The Near-Term Digital Radio System(NTDRS) is a Research and Development program to provide systems for test and experimentation. It will provide 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 project provides data distribution support to the Army's air defense, fire support, maneuver control, intelligence and combat service support automated systems, and is capable of "digitizing data messages" that must be transmitted on the battlefield. The Joint Tactical Information Distribution System (JTIDS)/ Multifunctional Information Distribution System (MIDS)/LINK-16 portion of the ADDS program is a joint program representing all services and allied force requirements with the purpose of acquiring a digital information system for tactical interoperability and awareness which complies with the ASD/C3I policy establishing LINK-16 as the DoD Defense Control Centers, and to control air and missile defense weapon engagement operations.

FY 1998 Accomplishments Program:

- 1586 Continued MIDS Development/Engineering Program Management Support
- 800 MIDS Testing
- 1337 Program Management/PMO Activities for NTDRS
- 2006 NTDRS Option Exercised for 174 radios and ancillary items.
- 2238 Test Activities (NTDRS)
- 11695 Continued NTDRS Program Hardware/Software Development
- 123 Purchased four Network Management Terminals/ Antenna Adapters
- Total 19785

FY 1999 Planned Program:

- 230 NTDR System Integration into Platforms
- 1002 Program Management/PMO Activities for NTDRS
- 1400 Test Activities (NTDRS)
- 5533 Continue NTDRS Development/FFP Efforts
- 510 NTDRS T&M Effort
- 228 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs

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Total 8903

FY 2000 Planned Program:

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

Total 10

FY 2001 Planned Program:

- 17 NTDRS Maintenance

Total 17

B. <u>Other Program Funding Summary</u>	<u>FY 1998</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>	To <u>Compl</u>	Total <u>Cost</u>
RDTE, 0604805A, D615*			4904	5183	3581	6001	12281	9810	0	41760

* The last year of D615 funding for the NTDRS program is FY2000. Beginning in FY2001 all D615 funding is in support of the Army Unique JTRS program.

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 FY99 the NTDRS will participate in the FBCB2 FDTE and IOT&E to provide the Army's Tactical Internet TOC-TOC data communications. In FY 1999/2000 NTDRS will continue design and testing efforts before planned deployment of the NTDRS into the FDD in mid-FY 2000 for continued experimentation purposes, and may serve as the proof of concept leading to the integration of the JTRS waveform/ network into the NTDRS program. 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 Systems (JTIDS) family of high speed data terminals. In FY99 MIDS will continue developmental and operational testing to support a projected FY2000 Milestone III decision.

D. <u>Schedule Profile</u>	<u>FY 1998</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>
NTDRS Division XXI Participation	1Q							
NTDRS EPG Field Test I	2Q							
NTDRS TOC to TOC In Process Review Approval	3Q							
NTDRS Option Award	4Q							
NTDRS EPG Field Test II		2Q						
NTDR FBCB2 FDT&E		4Q						
JTIDS Class 2M LRIP Delivery	2Q							

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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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D. Schedule Profile	<u>FY 1998</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>
Start Fielding JTIDS LRIP Terminals	2Q							
JTIDS Class 2M FRP Delivery		2Q						
MIDS Development Test Completion*		3Q						
MIDS OT/Multiservice Test Completion*		4Q						

* FY99 efforts funded in PE0603713A, D385

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603713A Army Data Distribution System						PROJECT D370		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. MIDS IPO Development	MIPR	MIDSCO, CA	135								135	
b. MIDS, Army Thruput	MIPR	MIDSCO, CA	700								700	
c. LINK16 Training Device	MIPR	AMCOM	190								190	
d. NTDRS Engineering Development*	C/CPIF/FFP /TM	ITT, Ft. Wayne	31362	5533	2Q						36895	36895
e. NTDRS/NMT/Antenna	MISC	MISC	423								423	
f. NTDRS T&M Efforts (Projected)	C/T&M	ITT Ft. Wayne	0	510	2Q						510	510
Subtotal Product Development:			32810	6043							38853	
Remark: *Does not include \$4.48M FY96/FY97 ADO funding, which is not part of D370 funding.												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. MIDS Engineering Support, MITRE	MIPR	CECOM, Ft. Monmouth	356								356	
b. MIDS Engineering Support (Logicon)	MIPR	CECOM, Ft. Monmouth	390								390	
c. NTDRS Frequency Network	MISC	MISC	245								245	
d. System Integration NDTRS	MIPR	TBD	0	230	TBD						230	
e. NTDRS Maintenance	TBD	TBD				10	TBD	17	TBD		27	
Subtotal Support Costs:			991	230		10		17			1248	
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. MIDS Operational Test	MIPR	Ft. Bliss	500								500	
Project D370												
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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603713A Army Data Distribution System						PROJECT D370		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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
b. MIDS Test Witnessing	MIPR	TECOM	100								100	
c. MIDS RAM Testing	MIPR	CECOM-C2SID	200								200	
d. NTDRS Field Testing	MIPR	EPG, Ft. Huachuca	3423	1400	Jan 99						4823	
e. Misc NTDRS Test Support	MIPR	TEXCOM	20								20	
f. Misc NTDRS Test Support	MIPR	NTC	8								8	
Subtotal Test and Evaluation:			4251	1400							5651	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. MIDS Program Support	MIPR	CECOM, Ft. Monmouth	379								379	
b. NTDRS Program Support	MIPR	Ft. Monmouth, NJ	3054	1230	2Q						4284	
c. NTDRS Contractor Program Support	MIPR	VITRO	144								144	144
Subtotal Management Services:			3577	1230							4807	
Project Total Cost:			41629	8903		10		17			50559	

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603713A Army Data Distribution System					PROJECT D385	
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	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)	0	6259	0	0	0	0	0	0	0	6259
<p>A. <u>Mission Description and Budget Item Justification:</u> 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.</p> <p>FY 1998 Planned Program: Project not funded in FY 1998, MIDS development was funded under D370.</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 1386 Interoperability/Qualification/User Requirements International Program Office • 804 Program Management Support for MIDS • 2633 MIDS Testing • 1271 MIDS Development • 165 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 6259</p> <p>FY 2000 Planned Program: Project not funded in FY 2000</p> <p>FY 2001 Planned Program: Project not funded in FY 2001</p> <p>B. <u>Other Program Funding Summary:</u> Procurement funding resides at platform level.</p> <p>C. <u>Acquisition Strategy:</u> 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 (MIDS) family of high speed data terminals. In FY99 MIDS will continue developmental and operational testing to support a projected FY2000 Milestone III Decision.</p>										
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D. Schedule Profile	<u>FY 1998</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>
Class 2M LRIP Delivery	2Q							
Class 2M FRP Delivery		2Q						
Start Fielding LRIP Terminals	2Q							
MIDS Development Test Completion		3Q						
MIDS OT/Multiservice Test Completion		4Q						

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603713A Army Data Distribution System						PROJECT D385		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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	MIPR	TBD		200	3Q						200	
Subtotal Product Development:				200							200	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. Software Support	C/TBD	LOGICON, NJ		315	3Q						315	
b. Software Support	C/FP	MITRE		443	1Q						443	
c. Computer Based Training/Log/Tech Spt	C/FP	TRACOR, NJ		313	2Q						313	
Subtotal Support Costs:				1071							1071	
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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. Operational Testing	MIPR	OPTEC		2633	2Q					0	2633	
b. Interoperability/Qual	MIPR	IPO		1386	3Q						1386	
Subtotal Test and Evaluation:				4019							4019	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 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		841	2Q						841	
b. Miscellaneous (TVL)	Various	PM TRCS		128	1-3Q						128	
Subtotal Management Services:				969							969	

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				Total PYs Cost	<u>FY 1999</u> Cost		<u>FY 2000</u> Cost		<u>FY 2001</u> Cost		Cost To Complete	Total Cost	Target Value of Contract
Project Total Cost:					6259							6259	