

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2002

APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT (PE) NAME AND NO.							Cost to Complete	Total Program
RDT&E, N /BA-7 Operational System Development			0206623M Marine Corps Ground Combat/Supporting Arms Systems								
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007				
Total PE Cost	38.581	43.547	36.004	22.202	20.637	19.371	24.743	Cont	Cont		
C0021 Assault Amphibious Vehicle 7A1 (AAV7A1)	0.432	0.359	0.372	0.382	0.394	0.402	0.410	Cont	Cont		
C1555 Light Armored Vehicle (LAV) PIP	9.196	14.147	4.845	1.425	1.478	1.526	1.578	Cont	Cont		
C1901 Marine Corps Ground Weaponry PIP	7.848	13.693	14.609	8.515	10.887	12.844	18.069	Cont	Cont		
C2086 Marine Enhanced Program (MEP)	2.022	2.532	2.392	2.708	2.747	2.703	2.752	Cont	Cont		
C2237 Amphibious Vehicle Test Branch (AVTB)	0.680	0.726	0.751	0.826	0.832	0.847	0.864	Cont	Cont		
C2503 Initial Issue	1.662	1.295	1.113	1.139	1.162	1.049	1.070	Cont	Cont		
C2928 EIFGSWS (HIMARS)	16.741	10.795	11.922	7.207	3.137	0.000	0.000	0.000	49.802		
Quantity of RDT&E Articles											

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This PE provides modification to Marine Corps Expeditionary Ground Force Weapon Systems to increase lethality, range, survivability and operational effectiveness. It also provides for the development of AAV7A1 reliability, maintainability, operational and safety modifications, improvements in command and control in the ADMS, product improvements to the family of LAVs and the development effort for the LAV-AD variant. The AVTB provides facilities and personnel which perform a broad range of testing, repair and technical services to amphibious vehicles.

This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing and manufacturing development for upgrades of existing systems.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational System Development	PROGRAM ELEMENT (PE) NAME AND NO. 0206623M Marine Corps Ground Combat/Supporting Arms Systems
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B. PROGRAM CHANGE SUMMARY

	FY2001	FY2002	FY2003
(U) FY 2002 President's Budget:	39.061	43.935	
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.525		
(U) Execution Adjustment	-0.164		
(U) Minor Affordability Adjustment	-0.196	-0.388	
(U) Program Adjustment	0.405		
(U) FY 2003 President's Budget:	38.581	43.547	36.004

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule:
- (U) Technical: Not Applicable.

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME					
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Systems			C0021 Assault Amphibious Vehicle 7A1 (AAV7A1)					
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	0.432	0.359	0.372	0.382	0.394	0.402	0.410	Cont	Cont
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) The AAV7A1 RDT&E program provides for the development, test and preparation of Engineering Change Proposals (ECPs) to improve the performance, reliability, maintainability and safety of the AAV7A1 Family of Vehicles (FOV). This program also allows for the development of installation kits for the integration of communications and navigation equipment developed for integration into the AAV7A1 FOV.

PROGRAM ACCOMPLISHMENTS AND PLANS

FY 2001 Accomplishments

- (U) \$ 0.432 Continued providing engineering support for development and integration of modification kits into AAV7A1 Family of Vehicles.

(U) Total \$ 0.432

FY 2002 Planned Program

- (U) \$ 0.359 Continue providing engineering support for development and integration of modification kits into AAV7A1 Family of Vehicles.

(U) Total \$ 0.359

FY 2003 Planned Program

- (U) \$ 0.372 Continue providing engineering support for development and integration of modification kits into AAV7A1 Family of Vehicles.

(U) Total \$ 0.372

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Systems	C0021 Assault Amphibious Vehicle 7A1 (AAV7A1)

(U) PROJECT CHANGE SUMMARY:

	FY2001	FY2002	FY2003
(U) FY 2002 President's Budget:	0.402	0.362	
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.011		
(U) Execution Adjustment			
(U) Minor Affordability Adjustment		-0.003	
(U) Program Adjustment	0.041		
(U) FY 2003 PRESBUD Budget:	0.432	0.359	0.372

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) B. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC, 202100, AAV 7A1 PIP	90.473	76.102	62.991	11.739	9.850	8.248	11.207	Continuing Continuing

(U) C. ACQUISITION STRATEGY:

These efforts focus on the development of Engineering Change Proposals to improve performance, reliability, maintainability and safety of the Assault Amphibious Vehicle. Contractor support will be acquired using already existing contracts.

(U) D. SCHEDULE PROFILE: N/A

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Dev	PROGRAM ELEMENT NUMBER AND NAME 0206623M Marine Corps Ground Combat/Supporting Arms Systems				PROJECT NUMBER AND NAME C1555 Light Armored Vehicle (LAV) PIP				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	9.196	9.147	4.845	1.425	1.478	1.526	1.578	Cont	Cont
RDT&E Articles Qty									
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
<p>The Light Armored Vehicle Family of Vehicles (LAV FOV) consists of seven fielded LAV configurations, and one communications/intelligence-configured asset on an LAV chassis (Mobile Electronic Warfare Support System). Collectively, the LAV FOV provides a logistically self-contained, highly mobile, and lethal combined arms combat system to the Marine Air-Ground Task Force (MAGTF). This project funds for the development and testing of modifications falling within the purview of the LAV Service Life Extension Program (SLEP) (See PMC: LAV SLEP (FY 2002-FY 2005)) Product Improvement Program. LAV SLEP will ensure the LAV FOV will be capable of conducting its assigned missions through FY 2015 by enhancing lethality and survivability; reliability, availability, maintainability and durability; as well as reducing operations and support costs. The LAV SLEP will essentially invest in technologies currently existing on newer generations of Light Armored Vehicles and other weapons systems.</p>									
PROGRAM ACCOMPLISHMENTS AND PLANS									
FY 2001 Accomplishments									
<ul style="list-style-type: none"> • (U) \$ 1.200 Completed development of LAV SLEP operational system prototypes for test and evaluation of SLEP modifications. • (U) \$ 4.252 Commenced developmental and operational testing and evaluation of 5 LAV SLEP modification prototypes. • (U) \$ 2.094 Continued development of LAV Service Life Extension Program to include fielding requirements, training, ILS, future maintenance requirements, and impacts to depot-level maintenance program. • (U) \$ 1.650 Conducted research and development of LAV Reliability Availability Maintainability (RAM) projects to include a one time installation and operational test of prototype two-speed transmissions prior to fielding. 									
(U) Total \$ 9.196									
FY 2002 Planned Program									
<ul style="list-style-type: none"> • (U) \$ 1.507 Complete developmental and operational testing (DT/OT) of SLEP operational system prototypes for test and evaluation (T&E) of SLEP mods. • (U) \$ 7.425 Development of 7 Thermal Sight Systems (TSS) prototypes for developmental and operational T&E of TSS modifications. • (U) \$ 3.939 Continue operational systems developmental and program management requirements for LAV SLEP and TSS. • (U) \$ 1.276 Conduct research and development of LAV RAM projects to include 2 speed transfer case and tire replacement initiatives. 									
(U) Total \$ 14.147									
(U) FY 2003 Planned Program:									
<ul style="list-style-type: none"> • (U) \$ 3.397 Conduct DT/OT of LAV TSS prototypes for T&E of TSS modifications. • (U) \$ 0.100 Complete development of TSS prototypes. • (U) \$ 1.348 Conduct research and development of LAV RAM projects. 									
(U) Total \$ 4.845									
*NOTE: LAV PIP REDUCTION OF \$5M IN FY02 SHOULD HAVE BEEN APPLIED TO LIGHTWEIGHT 155.									

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Systems	C1555 Light Armored Vehicle (LAV) PIP

(U) PROJECT CHANGE SUMMARY:

	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
(U) FY 2002 President's Budget:	9.759	14.273	
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer			
(U) Execution Adjustment			
(U) Minor Affordability Adjustment		-0.126	
(U) Program Adjustment	-0.563		
(U) FY 2003 President's Budget:	9.196	14.147	4.845

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) B. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC, 203800, LAV PIP	1.693	25.454	53.166	65.478	57.019	10.487	3.718 Continuing	Continuing

(U) Related RDT&E: Not Applicable.

(U) C. ACQUISITION STRATEGY: The LAV Service Life Extension Program (SLEP) is designed to extend the service life of the LAV Family of Vehicles through 2015, an increase of 12 to 15 years beyond its original projected useful life. This is being done by utilizing both developmental and off-the-shelf technologies to enhance survivability, lethality, mobility and sustainability while simultaneously reducing the cost of ownership. PM, LAV uses multi-disciplined integrated product teams consisting of engineering, logistical, contracting and financial personnel to manage the SLEP. SLEP contracts have been designed using a winner-take-all methodology in order to reduce costs and encourage competition. PM, LAV retains oversight of the SLEP procurement.

(U) C. ACQUISITION STRATEGY: The LAV RAM project funds numerous low-dollar, yet extremely important minor modifications, support equipment and tools and other such projects that increase LAV reliability and readiness while simultaneously reducing operations and support costs. PM, LAV uses multi-disciplined integrated project teams consisting of engineering, logistical, contracting and financial personnel to manage RAM projects. The majority of contracts issued under the RAM line are subject to the competitive acquisition process. PM, LAV retains oversight of all LAV RAM projects.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Dev	PROGRAM ELEMENT NUMBER AND NAME 0206623M Marine Corps Ground Combat/Supporting Arms Systems	PROJECT NUMBER AND NAME C1555 Light Armored Vehicle (LAV) PIP

(U) D. SCHEDULE PROFILE:

LAV SLEP

Milestone 0:	1 st Qtr, FY 1998	Milestone III:	2 nd Qtr, FY 2002
Milestone I:	2 nd Qtr, FY 1999	Contract Award:	2 nd Qtr, FY 2002
Milestone II:	2 nd Qtr, FY 2000	IOC:	1st Qtr, FY 2003
DT / OT:	2 nd Qtr, FY 2001	FOC:	1 st Qtr, FY 2007

<u>Program Funding Summary</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<u>(U) RDT&E,N</u>	9.196	9.147	4.845	1.425	1.478	1.526	1.578	Continuing	Continuing
<u>(U) PMC, BLI# 203800 LAV SLEP</u>	1.693	25.454	53.166	65.478	57.019	10.487	3.718	Continuing	Continuing

CLASSIFICATION:

Exhibit R-3 Cost Analysis						DATE: February 2002						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N /BA 7 Operational Sys Dev			0206623M Marine Corps Ground Combat/Supporting Arms Systems			C1555 Light Armored Vehicle (LAV) PIP						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test & Eval (T&E)												
Developmental Test & Eval	MIPR	LAV Test Dir, Yuma Prv Grnd	5.133	0.000		1.507	Various			0.000	6.640	6.640
Developmental Test & Eval	MIPR	Aberdeen Test Center	0.000	0.767	Various			0.900	1Q03	Continuing	Continuing	
Subtotal T&E			5.133	0.767		1.507		0.900		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Program Management												
Program Management	WR	PMO LAV, Tacom, MI	24.718	1.192	1Q01	4.114	1Q02	0.600	1Q03	Continuing	Continuing	
Subtotal Management			24.718	1.192		4.114		0.600		Continuing	Continuing	
Remarks:												
Total Cost				9.196		14.147		4.845		Continuing	Continuing	

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME								
RDT&E, N/BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Sys					C1901 Marine Corps Ground Weaponry PIP			
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	7.848	13.693	14.609	8.515	10.887	12.844	18.069	Cont	Cont
RDT&E Articles Qty									
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
<p>(U) This Project develops joint and Marine Corps unique improvements to infantry weapons and artillery technology, USMC unique Amphibious Armor Systems (AAS), improvements for the M1A1 Main Battle Tank and support systems, USMC Family of Small Craft, Ni</p> <p>PROGRAM ACCOMPLISHMENTS AND PLANS</p> <p>FY 2001 Accomplishments</p> <ul style="list-style-type: none"> • (U) \$ 0.141 Family of Artillery Munitions (FAM): Supported a production decision for the Modular Artillery Charge System, to include Weapons Systems Explosive Safety Review Board testing, program support, and travel. Continue the active monitoring of U.S. Army artil • (U) \$ 0.550 Family of Small Craft: Provided Fault Analysis and Fault Isolation (FAFI) for the Riverine Assault Craft (RAC) and the Rigid Raiding Craft (RRC) and associated equipment at MCPD, Fallbrook, CA. Engineering analysis and development for the replacement Int • (U) \$ 1.132 Fire Support Mods: Continued joint participation in artillery and fire support improvement projects. Specifically, continued joint sustainment of the M198 Howitzer, Meteorological Measuring System and Firefinder Radar to include safety modifications and • (U) \$ 1.246 Infantry Wpns Mods: Continued joint participation and Marine Corps unique activities to improve the safety, lethality, and technology of Marine Corps infantry/reconnaissance individual and crew served weapons and equipment. Sought to integrate weapons sy • (U) \$ 2.625 M1A1 Firepower Enhancements: Completed preliminary design of integrated non-developmental item (NDI) package to include improved thermal sight, and north-finding/far target location capability. Finalize fabrication/testing of prototypes. • (U) \$ 0.085 Future Fighting Vehicle: Provided organizational support and salaries in support of the Future Fighting Vehicle. • (U) \$ 0.188 M1A1 Firepower Enhancement (Forward Finance) : Conduct comparative assessments of competing designs and conduct system design review to finalize system performance specification. Perform Final Integration and Prove out. Procurement of test articles, co • (U) \$ 0.184 M1A1 Armor Mods: Continued joint evaluation of modifications including Component Enhancements, Advanced Fire Control Systems, Survivability Systems, Combat Identification and others. 									

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP
<ul style="list-style-type: none"> • (U) \$ 0.424 Night Vision Mod Line: Continued joint participation and Marine Corps unique activities for evaluation of safety, lethality and technology improvements for Marine Corps Night Vision Devices. Provides for In Service Engineering Activity (ISEA) at Naval Sur • (U) \$ 0.053 Thermal Weapons Sight (TWS)[AN/PAS-13]: Provided for joint participation in Pre-Planned Product Improvement (P3I) for TWS – remote image transfer, laser range finder, aimport reticle (mechanical, quadrant-style sight), mounting brackets for future small a • (U) \$ 1.220 Target Location Designation and Hand-Off System (TLDHS): Continued incremental refinement, coding, evaluation and Independant Verification & Validation (IV&V) of the TLDHS-specific software application to ensure interoperability with the emerging Marine C 		
(U) Total \$	7.848	
FY 2002 Planned Program		
<ul style="list-style-type: none"> • (U) \$ 1.460 AN/GVS-5-Laser Range Finder replacement Advanced Eye Safe Range Finder and Observation System (AEROS): Funds will be used for engineering support and to purchase candidate systems for use in a down select. Systems will be used for developmental testing • (U) \$ 0.366 AN/TPQ-46 Radar Mod: Conduct analysis of U.S. Army led False Target Location Modifications (FTLM) engineering change proposal (ECP) package relative to defined requirements. Develop Milestone decision documentation for FTLM ECP. • (U) \$ 0.268 Family of Artillery Munitions (FAM): Support a production decision for the Modular Artillery Charge System, to include: Weapons Systems Explosive Safety Review Board testing, program support, and travel. Continue the active monitoring of U.S. Army artill • (U) \$ 0.594 Family of Small Craft: Funds will continue to provide for conducting engineering analysis and exploration of enhancements. Integration testing for a new navigation suite will begin. MCPD Fallbrook will continue to support Fault Analysis and Fault Isolat • (U) \$ 0.716 Fire Support Mods: Continue joint participation in artillery and fire support improvement projects. Specifically, developed a firing mechanism upgrade for the theodolite modification associated with the MMS as well as safety modifications and service lif • (U) \$ 0.820 Infantry Wpns Mods: Continue joint participation and Marine Corps unique activities for evaluation of safety, lethality, and technology improvements for Marine Corps infantry/reconnaissance individual /crew-served weapons. Past years efforts have impacte • (U) \$ 0.501 Interim Small Unit Remote Scouting System (ISURSS): Funds will be used for Operational System Development, Contractor support and Program Office Travel. • (U) \$ 7.762 MIA1 Firepower Enhancement: Conduct comparative assessments of competing designs and conduct system design review to finalize system performance specification. Perform Final Integration and Prove out. Procurement of test articles, conduct developmental • (U) \$ 0.000 MIA1 Firepower Enhancement (Forward Finance FY 01 Funding) : Conduct comparative assessments of competing designs and conduct system design review to finalize system performance specification. Perform Final Integration and Prove out. Procurement of tes 		

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	
RDT&E, N/BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP
• (U) \$	0.298 MIAI Armor Mods: Continue joint participation and evaluation of prospective modifications including Component Enhancements, Advanced Fire Control Systems, Survivability Systems, Combat Identification, mobility and others.	
• (U) \$	0.441 Night Vision Mod Line: Continue joint participation and Marine Corps unique activities for evaluation of safety, lethality and technology improvements for Marine Corps Night Vision Devices. Provides for In Service Engineering Activity (ISEA) at NSWC, Cran	
• (U) \$	0.118 Thermal Weapons Sight (TWS)[AN/PAS-13]: Provide for joint participation in pre-planned product improvement (P3I) for TWS – remote image transfer, laser range finder, aimport reticle (mechanical, quadrant-style sight), mounting brackets for future small ar	
• (U) \$	0.349 Target Location Designation and Hand-Off System (TLDHS): Continue incremental refinement, coding, evaluation and IV&V of the TLDHS-specific software application to ensure interoperability with the emerging Marine Corps tactical C4I architecture and with o	
(U) Total \$	13.693	
(U) FY 2003 Planned Program:		
• (U) \$	1.802 AN/GVS-5 Replacement (AEROS): Funds will be used for engineering support and procurement of EMD systems for OT&E. DT and OT&E will be conducted. Funds will also be used for software development test and integration.	
• (U) \$	0.284 Family of Artillery Munitions (FAM): Complete work associated with a production decision for the Modular Artillery Charge System, to include: Weapons Systems Explosive Safety Review Board testing, program support, and travel. Continue the active monitori	
• (U) \$	0.464 Family of Raids and Reconnaissance Equipment: Continue participation with Natick Labs on refinement of Full Spectrum Battle Equipment (FSBE) program and enhancement of FSBE ensemble. Integrate logistics to standardize and improve existing close quarters	
• (U) \$	0.107 Family of Small Craft: : Continue to pursue improvements for the Riverine Assault Craft and the rigid Raiding Craft. MCPD Fallbrook is the principle agency for supporting these efforts. Safety related issues will be priority, such as conducted in past y	
• (U) \$	0.914 Fire Support Mods: Continue joint participation in artillery and fire support improvement projects. Specifically conduct life cycle analysis on the M198 Howitzer develop GPS-SASSAM capability for the MMS and develop light ECP and software upgrade for the	
• (U) \$	0.823 Infantry Wpns Mods: Continue joint participation and Marine Corps unique activities for evaluation of safety, lethality, and technology improvements for Marine Corps infantry/reconnaissance individual /crew-served weapons. Funds will continue to explore	

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RDT&E, N/BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP	
<ul style="list-style-type: none"> • (U) \$ 0.502 Interim Small Unit Remote Scouting System (ISURSS): Funds will be used for Operational System Development, Contractor support and Program Office Travel. • (U) \$ 4.843 MIA1 Firepower Enhancement: Perform EMD phase activities. Procurement of test articles, conduct developmental and operational test and evaluation, pre-production technical reviews/audits, and logistical support development/planning. • (U) \$ 0.252 MIA1 Armor Mods: Continue joint participation and evaluation of prospective modifications including Component Enhancements, Advanced Fire Control Systems, Survivability Systems, Combat Identification, mobility and others. • (U) \$ 2.012 Mortar Ballistic Computer (MBC): Initiate R&D efforts in development (including programmatic documentation and support), coding, evaluation, independent verification and validation of MBC technical firing computational software, and integration to a comme • (U) \$ 0.500 Interim Passenger Helicopter Aircrew Breathing Device: Initiate R&D efforts in development of underwater breathing device providing limited life-saving capability. Device will allow an underwater breathing capability for Marines who find themselves • (U) \$ 0.960 Night Vision Mod Line: Continue joint participation and Marine Corps unique activities for evaluation of safety, lethality and technology improvements for Marine Corps Night Vision Devices. Provides for In Service Engineering Activity (ISEA) at NSWC, Cran • (U) \$ 0.058 Thermal Weapons Sight (TWS)(AN/PAS-13): Provide for joint participation in P3I for TWS – remote image transfer, laser range finder, aimport reticle (mechanical, quadrant-style sight), mounting brackets for future small arms weapons, vertical angle measure • (U) \$ 1.088 Underwater Reconnaissance Capability (URC): Funds provided for Concept Exploration and development of prototypes for Divers Propulsion Device (DPD) and for the Tactical Hydrographic Survey Equipment (THSE) in support of Underwater Reconnaissance operation 			
(U)Total \$	14.609		
		FY2001	FY2002
(U) FY 2002 President's Budget:		7.999	13.815
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer		-0.097	
(U) Execution Adjustment			
(U) Minor Affordability Adjustment			-0.122
(U) Program Adjustment		-0.054	
(U) FY 2003 President's Budget:		7.848	13.693
		14.609	
CHANGE SUMMARY EXPLANATION:			
(U) Funding: See Above.			
(U) Schedule: Not Applicable.			
(U) Technical: Not Applicable.			

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME								
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat/Supporting Arms Sys					C1901 Marine Corps Ground Weaponry PIP			
(U) B. OTHER PROGRAM FUNDING SUMMARY:									
<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost	
(U) PMC (BLI#206200) Improved Recovery Veh	42.232	20.758	4.179	3.749	0.721	0.158	0.000	0.000	71.797
(U) PMC (BLI#206300) Mod Kits (Tracked Veh)	21.292	3.776	3.297	23.486	29.924	39.414	45.935	Continuing	Continuing
(U) PMC (BLI#220900) Mod Kits (Arty & Other)	3.470	1.459	4.890	4.448	10.584	18.705	96.283	Continuing	Continuing
(U) PMC (BLI#222000) Under \$5 Million	0.411	0.271	0.312	0.321	0.328	0.326	0.332	Continuing	Continuing
(U) PMC (BLI#233400) Modular Weapon System		4.345	24.352	14.024				0.000	42.721
(U) PMC (BLI#462000) <\$5M (Comm&Electrnics)	10.585	8.912	16.097	12.831	9.276	7.041	7.435	Continuing	Continuing
(U) PMC (BLI#473300) Fire Support Systems	0.011	4.198	34.855	29.785	0.000	2.883	3.441	Continuing	Continuing
(U) PMC (BLI#475000) Items Under \$5M (Intel)	1.011	1.633	1.843	2.250				Continuing	Continuing
(U) PMC (BLI#493000) Night Vision Equipment	21.155	28.999	23.204	30.305	34.374	24.107	7.472	Continuing	Continuing
(U) PMC (BLI#643400) Amphibious Raid Equip		2.319	22.295	26.439	13.956	13.461	12.284	Continuing	Continuing
(U) PMC (BLI#667000) Items Less Than \$5M	8.965	7.586	5.772	10.323	11.683	11.505	11.528	Continuing	Continuing
 (U) Related RDT&E: (U) All Ground Weapons and Ground Ammunition Systems: Army, Navy, Air Force, Coast Guard, and Special Operations Command									
 (U) C. ACQUISITION STRATEGY:									
 (U) This line covers programs ranging from Off-The-Shelf modifications to Developmental Items. TLDHS acquires the Laser Locator Designator and Rangefinder (LLDR) being developed by the Army. This component is integrated with hand-held computer ru									

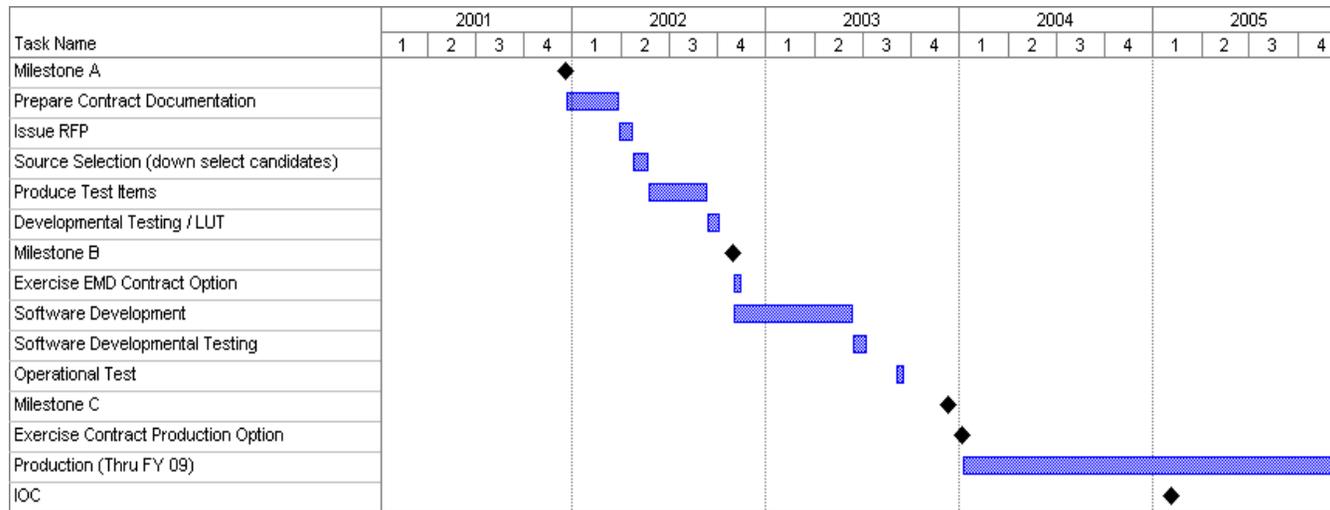
UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Dev	PROGRAM ELEMENT NUMBER AND NAME 0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP

(U) D. SCHEDULE PROFILE:

AEROS PROGRAM
(AN/GVS-5 Replacement)



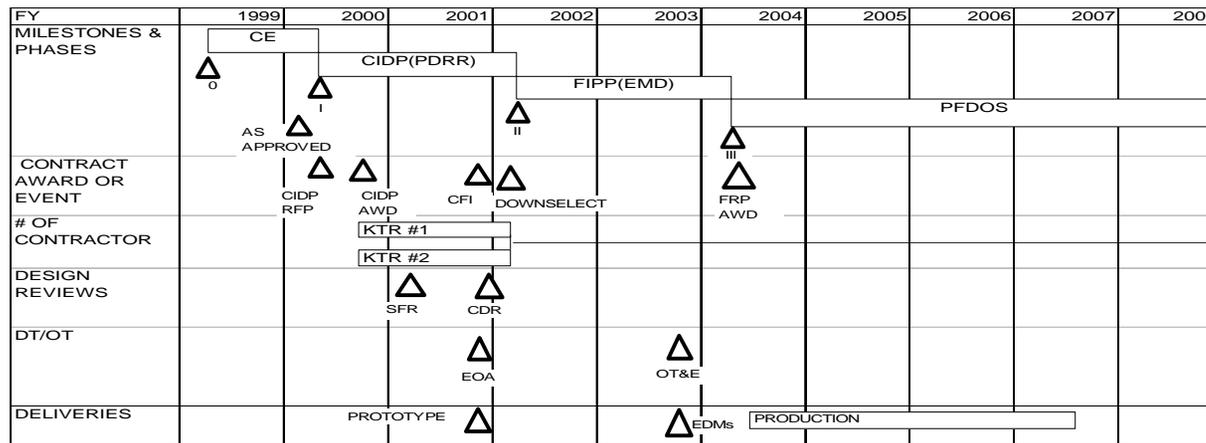
Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(APPN, BLI #, NOMEN)								
(U) RDT&E,N		1.460	1.802				0.000	3.262
(U) PMC, BLI# 493000 Nt Vision Eq				7.960	16.776	20.623	0.000	45.359

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MIA1 Firepower Enhancement Program (FEP)



<u>Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<u>(APPN, BLI #, NOMEN)</u>									
(U) RDT&E,N	2.813	7.762	4.843					0.000	15.418
(U) PMC BLI# 206300 Mod Kits (Tracked Vehicles)				20.699	25.331	35.047	41.279	Continuing	Continuing

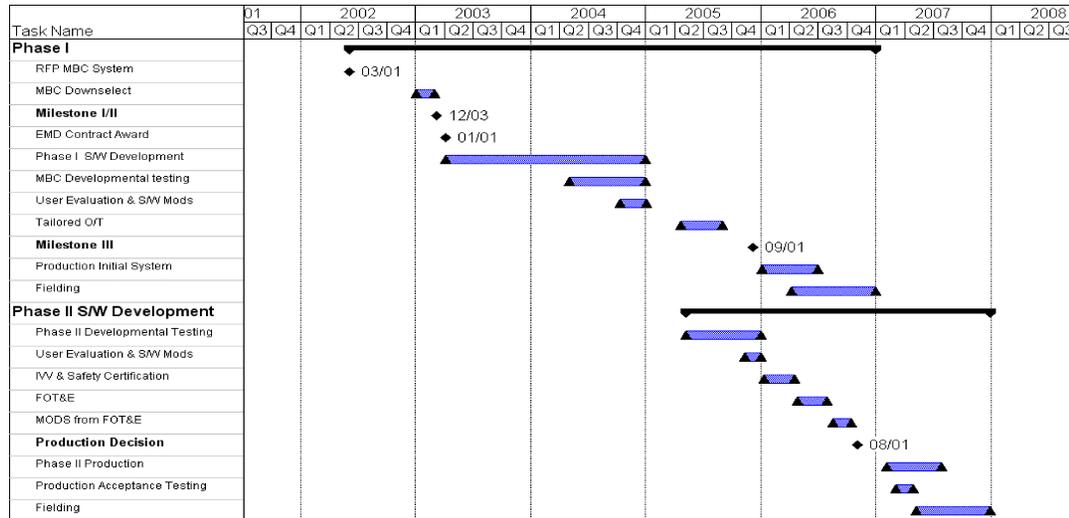
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EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2002
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Dev	PROGRAM ELEMENT NUMBER AND NAME 0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP
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MORTAR BALLISTIC COMPUTER



<u>Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<u>(APPN, BLI #, NOMEN)</u>									
(U) RDT&E,N			2.012	2.551	3.635	0.650	0.053	0.000	8.901
(U) PMC BLI# 473300 Fire Support Systems						2.883	3.441	0.000	6.324

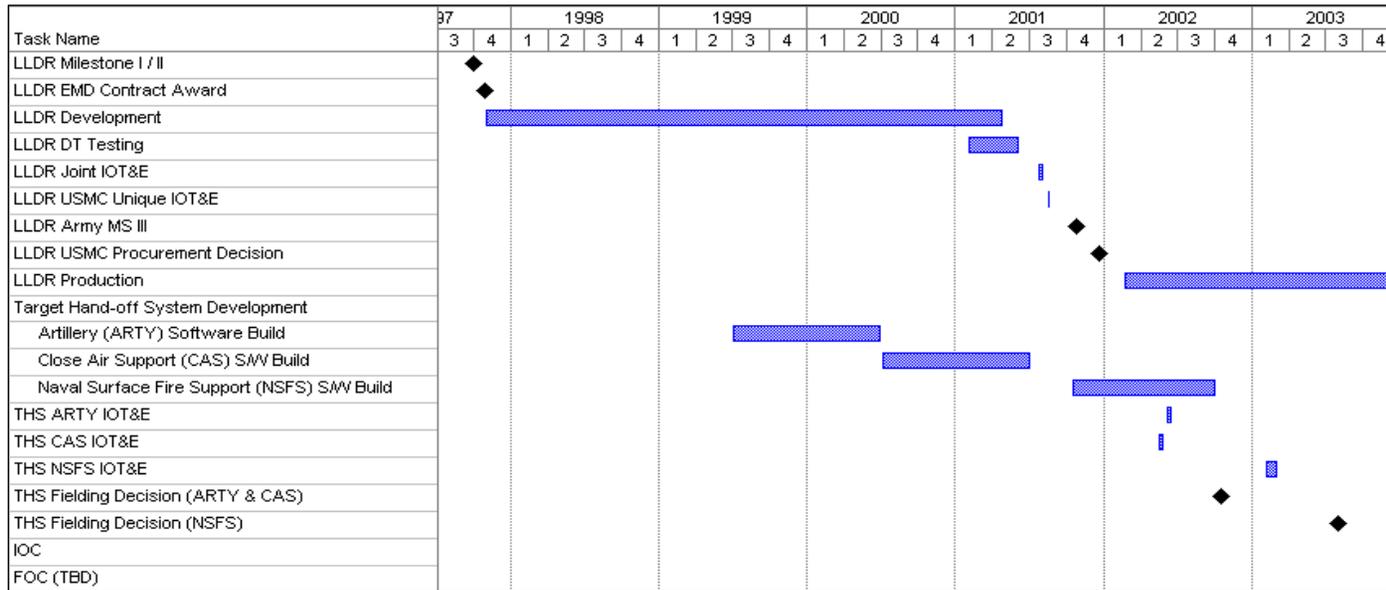
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Dev	PROGRAM ELEMENT NUMBER AND NAME 0206623M Marine Corps Ground Combat/Supporting Arms Sys	C1901 Marine Corps Ground Weaponry PIP
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Target Location Designation Hand-off System (TLDHS)



LLDR - Lightweight Laser Designator Rangefinder THS - Target Hand-off System CAS - Close Air Support

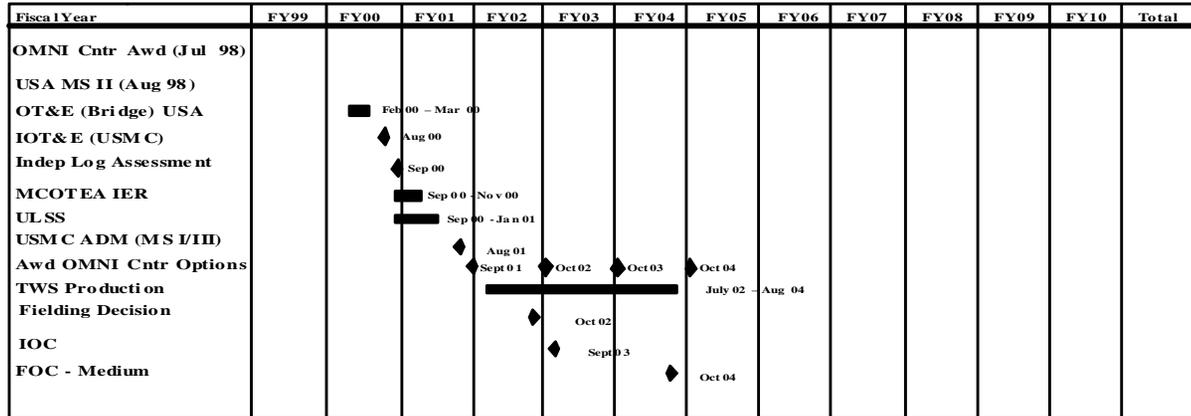
Program Funding Summary	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
(APPN, BLI #, NOMEN)									
(U) RDT&E,N	1.220	0.349						0.000	1.569
(U) PMC BLI# 473300 Fire Support Systems	0.011	4.198	34.855	29.785				0.000	68.849

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THERMAL WEAPON SIGHT (TWS)



<u>Program Funding Summary</u> <u>(APPN, BLI#, NOMEN)</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
<u>(U) RDT&E,N</u>	0.053	0.118	0.058	0.058	0.058		0.000	0.345
<u>(U) PMC, BLI# 493000 Nt Vision Eq</u>	14.169	18.500	18.526	19.111	13.930		0.000	84.236

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RDT&E, N /BA 7 Operational Sys Dev			0206623M Marine Corps Ground Combat/Supporting Arms Sys			C1901 Marine Corps Ground Weaponry PIP						
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT		SEE BELOW										
AN/GVS5 REPLACEMENT	RCP	TBD						1.100	2Q03	Continuing	Continuing	
AN/TPQ-46	RCP	TBD				0.201	1Q02			Continuing	Continuing	
Fam Impr Mortars	MIPR	PM Mortars, Picatinny NJ	0.155							Continuing	Continuing	
Fam Raid and Recon	MIPR	NATIC Labs, MA						0.300	1Q03	Continuing	Continuing	
Fam Raid and Recon	WR	CSS, Panama City, FL						0.100	1Q03	Continuing	Continuing	
Fam Small Craft Mods	WR/RCP	NSWC, Crane IN	0.785	0.325	1Q01	0.402	2Q02			Continuing	Continuing	
Fire Spt Mods	WR	Marine Det, Ft Sill, OK	0.130	0.050	1Q01	0.050	1Q02	0.050	1Q03	Continuing	Continuing	
Fire Spt Mods	MIPR	USArmy CECOM, Ft Monmouth NJ	0.205	0.198	2Q01	0.064	1Q02	0.064	1Q03	Continuing	Continuing	
Fire Spt Mods	WR	NSWC, Crane IN		0.030	1Q01					Continuing	Continuing	
Fire Spt Mods	VAR	VARIOUS		0.161	1Q01			0.250	2Q03	Continuing	Continuing	
IRV	MIPR	UDLP, York, PA	0.058							Continuing	Continuing	
Inf Weapon Mods	WR/RCP	MCCDC, Quantico, VA	0.527	0.198	1Q01	0.092	1Q02	0.050	1Q03	Continuing	Continuing	
Inf Weapon Mods	WR	WTBN	0.008					0.243	2Q03	Continuing	Continuing	
ISURSS	RCP	TBD				0.374	TBD	0.400	2Q03	Continuing	Continuing	
MBC	RCP	TBD						1.500	2Q03	Continuing	Continuing	
M1A1 Firepower	RCP	RATHEON/DRS	5.372	2.389	2Q01	7.137	2Q02	3.000	2Q03	Continuing	Continuing	
M1A1 Firepower	MIPR	Nt Vision Lab, Ft Belvoir, VA	0.200	0.200	2Q01	0.200	2Q02	0.200	2Q03	Continuing	Continuing	
M1A1 Mods	RCP	Ctr Nav Anl, Alexandria, VA	0.300							Continuing	Continuing	
M1A1 Mods	WR/RCP	TACOM, Warren MI	0.193							Continuing	Continuing	
M1A1 Mods	WR/RCP	TBD	0.023	0.153	1Q01	0.188	1Q02	0.132	2Q03	Continuing	Continuing	
Nt. Vision Mod	WR/RCP	NSWC, Crane IN	0.045	0.050	2Q01	0.041	1Q02	0.650	1Q03	Continuing	Continuing	
Nt. Vision Mod	MIPR	Nt Vision Lab, Ft Belvoir, VA	0.050	0.100	2Q01	0.100	2Q02	0.100	1Q03	Continuing	Continuing	
TWS	MIPR	Nt Vision Lab, Ft Belvoir, VA	0.242			0.018	2Q02	0.043	1Q03	Continuing	Continuing	
TWS	RCP	MCSC, Quantico, VA	0.138							Continuing	Continuing	
TLDHS	RCP	Synetics, Inc King George, VA	1.709	0.281	1Q01	0.126	1Q02			Continuing	Continuing	
TLDHS	MIPR	Nt Vision Lab, Ft Belvoir, VA	2.031							Continuing	Continuing	
IPHABD	MIPR	NATICK						0.500	1Q03	Continuing	Continuing	
Underwater Recon (URC)	WR	CSS, Panama City, FL						0.200	2Q03	Continuing	Continuing	
Underwater Recon (URC)	RCP	CSS, Panama City, FL						0.600	2Q03	Continuing	Continuing	
HABD	NA	NA										
Subtotal Product Dev			12.171	4.135		8.993		9.482		Continuing	Continuing	

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
PROGRAM SUPPORT		SEE BELOW											
AN/GVS-5	WR	MCSC, Quantico, VA				0.204	1Q02	0.204	1Q03	Continuing	Continuing		
AN/GVS-5	RCP	BAEST, Stafford, VA				0.109	10/05	0.109	1Q03	Continuing	Continuing		
AN/TPQ-46	RCP	BAEST, Stafford, VA				0.150	1Q02			Continuing	Continuing		
AN/TPQ-46	WR	MCSC, Quantico, VA				0.015	1Q02			Continuing	Continuing		
Fam Artillery Munitions	WR/RCP	BAEST, Stafford, VA	0.059	0.049	10/01	0.046	1Q02	0.062	1Q03	Continuing	Continuing		
Fam of Small Craft	RCP	BAEST, Stafford, VA						0.064	Q103	Continuing	Continuing		
Fam Small Craft Mods	RCP	ALS, Inc, Dumfries, VA	0.130							Continuing	Continuing		
Fam Small Craft Mods	RCP	BAEST, Stafford, VA		0.050	Various	0.050	1Q02			Continuing	Continuing		
Fam Small Craft Mods	WR	MCSC, Quantico, VA	0.096	0.050	05/01	0.050	10/05			Continuing	Continuing		
Fire Supt Mods	WR/RCP	BAEST, Stafford, VA	0.373	0.673	1Q01	0.522	1Q02	0.521	1Q03	Continuing	Continuing		
Fire Supt Mods	RCP	ALS, Inc, Dumfries, VA	0.452							Continuing	Continuing		
Fire Supt Mods	WR	NSWC, Dahlgren, VA	0.150							Continuing	Continuing		
Fire Supt Mods	MIPR	TACOM, Rock Island, IL		0.030	1Q00					Continuing	Continuing		
IRV	RCP	ALS, Inc, Dumfries, VA	0.050							Continuing	Continuing		
IRV	WR	MCSC, Quantico, VA	0.093							Continuing	Continuing		
Inf Wpns Mods	WR	MCSC, Quantico, VA	0.217	0.130	1Q01	0.130	1Q02	0.100	1Q03	Continuing	Continuing		
Inf Wpns Mods	RCP	ALS, Inc, Dumfries, VA	0.341							Continuing	Continuing		
Inf Wpns Mods	RCP	BAEST, Stafford, VA	0.096			0.350	1Q02	0.200	1Q03	Continuing	Continuing		
Inf Wpns Mods	WR/RCP	NSWC, Dahlgren, VA	0.580	0.227	1Q01	0.136	1Q02			Continuing	Continuing		
Inf Wpns Mods	WR	MCLB, Albana, GA	0.050	0.025	1Q01	0.025	1Q02			Continuing	Continuing		
Inf Wpns Mods	WR/RCP	NSWC, Crane, IN	0.181	0.031	1Q01	0.012	1Q02			Continuing	Continuing		
Inf Wpns Mods	WR/RCP	CSS, Panama City, FL	0.461							Continuing	Continuing		
ISURSS	WR/RCP	BAEST, Stafford, VA				0.127	1Q02	0.102	1Q03	Continuing	Continuing		
M1A1 Firepower	RCP	ALS, Inc, Dumfries, VA	0.064							Continuing	Continuing		
M1A1 Firepower	RCP	BAEST, Stafford, VA		0.064	2Q01	0.361	2Q02			Continuing	Continuing		
M1A1 Firepower	MIPR	GDLS, Warren, MI/ARDEC/NVL	0.472	0.500	1Q01			0.500	2Q03	Continuing	Continuing		
M1A1 Mods	RCP	ALS, Inc, Dumfries, VA	0.080							Continuing	Continuing		
M1A1 Mods	RCP	BAEST, Stafford, VA		0.032	Various	0.040	1Q02			Continuing	Continuing		
M1A1 Mods	WR	MCSC, Quantico, VA	0.110	0.050	1Q01	0.050	1Q02			Continuing	Continuing		
MBC	WR	MCSC, Quantico, VA	0.075					0.200	1Q03	Continuing	Continuing		
Nt Vision Mod	WR	MCSC, Quantico, VA	0.075	0.038	1Q01	0.125	Various	0.050	1Q03	Continuing	Continuing		

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 COST	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PROGRAM SUPPORT (continued) SEE BELOW												
Nt Vision Mod	RCP	ALS, Inc, Dumfries, VA	0.055							Continuing	Continuing	
Nt Vision Mod	RCP	BAEST, Stafford, VA		0.147	Various	0.150	1Q02	0.135	2Q03	Continuing	Continuing	
TWS	WR	MCSC, Quantico, VA	0.102	0.016	Various	0.030	Various			Continuing	Continuing	
TWS	RCP	ALS, Inc, Dumfries, VA	0.185							Continuing	Continuing	
TWS	RCP	BAEST, Stafford, VA		0.037	Various	0.050	Various	0.015	2Q03	Continuing	Continuing	
TLDHS	RCP	ALS, Inc, Dumfries, VA	0.165							Continuing	Continuing	
TLDHS	RCP	BAEST, Stafford, VA		0.396	Various	0.045	Various			Continuing	Continuing	
TLDHS	WR	MCSC, Quantico, VA	0.160	0.083	1Q01	0.013	Various			Continuing	Continuing	
TLDHS	WR	NSWC, Dahlgren, VA	0.970							Continuing	Continuing	
Underwater Recon (URC)	WR	MCSC, Quantico, VA						0.088	2Q03	Continuing	Continuing	
Subtotal Support			5.842	2.628		2.790		2.350				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 COST	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
T&E												
AN/GVS-5 Replcmnt	MIPR	AMCOM, Huntsville, AL				1.147	1Q02			Continuing	Continuing	
AN/GVS-5 Replcmnt	WR	TBD						0.289	2Q03	Continuing	Continuing	
Family Arty Mun	WR/RCP	NSWC, Crane, IN	0.089	0.093	1Q01	0.222	1Q02	0.222	1Q03	Continuing	Continuing	
Family Small Craft Mods	WR	NSWC, Crane, IN	0.146	0.085	1Q01	0.092	1Q02			Continuing	Continuing	
Family Small Craft Mods	WR	Fallbrook, CA						0.077	1Q03	Continuing	Continuing	
Family Small Craft Mods	WR	Carderock, MD						0.010	1Q03	Continuing	Continuing	
Fire Spt Mods	WR	MCOTEA, Quantico, VA	0.025					0.063	2Q03	Continuing	Continuing	
IRV	WR	CSS, Panama City, FL	0.260							Continuing	Continuing	
Inf Wpn Mods	WR	MCOTEA, Quantico, VA	0.060	0.010	Various	0.010	Various	0.066	2Q03	Continuing	Continuing	
Inf Wpn Mods	WR	MCCDC, Quantico, VA	0.105	0.065	Various	0.065	Various	0.050	2Q03	Continuing	Continuing	
MBC	WR	TBD						0.212	2Q03	Continuing	Continuing	
M1A1 Firepower	MIPR	ARDEC, Rock Island, IL	0.030	0.020	1Q01	0.020	1Q01	0.025	2Q03	Continuing	Continuing	
M1A1 Firepower	WR	MCOTEA, Quantico, VA	0.100					0.933	2Q03	Continuing	Continuing	

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
T&E (continued)		SEE BELOW											
Nt Vision Mods	WR	MCOTEA, Quantico, VA	0.050	0.025	2Q01	0.025	2Q01	0.025	2Q03	Continuing	Continuing		
TWS	WR	MCOTEA, Quantico, VA	0.050			0.020	Various			Continuing	Continuing		
TLDHS	WR	NSWC, Dahlgren, VA	0.299	0.297	1Q01	0.085	1Q01			Continuing	Continuing		
TLDHS	WR	MCOTEA, Quantico, VA	0.252	0.117	2Q01	0.075	2Q01			Continuing	Continuing		
Subtotal T&E			1.466	0.712		1.761		1.972		Continuing	Continuing		
Remarks:													
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
MANAGEMENT		SEE BELOW											
AN/GVS-5 REPLCMT	RCP	BAEST, Stafford, VA						0.100	1Q03				
Fam Improved Mortars	WR	MCSC, Quantico, VA	0.008							Continuing	Continuing		
Fire Supt Mods	WR	MCSC, Quantico, VA	0.392	0.190	1Q02	0.080	1Q02	0.080	1Q03	Continuing	Continuing		
Inf Wpns Mods	RCP	ALS, Inc, Dumfries, VA	0.114	0.159						Continuing	Continuing		
MBC	RCP	BAEST, Stafford, VA						0.100	1Q03	Continuing	Continuing		
M1A1 MOD KIT	RCP	BAEST, Inc, Dumfries, VA	0.011					0.120	1Q03	Continuing	Continuing		
M1A1 Firepower	RCP	BAEST, Stafford, VA		0.011	2Q01	0.064	2Q02	0.185	2Q03	Continuing	Continuing		
TLDHS	RCP	ALS, Inc, Dumfries, VA	0.018							Continuing	Continuing		
Underwater Recon (URC)	RCP	BAEST, Stafford, VA						0.200	2Q03	Continuing	Continuing		
Fam of Raid and Recon	WR	MCSC, Quantico, VA						0.020	2Q03	Continuing	Continuing		
TLDHS	RCP	BAEST, Stafford, VA		0.013	Various	0.005	Various			Continuing	Continuing		
Subtotal Management			0.543	0.373		0.149		0.805		Continuing	Continuing		
Remarks:													
Total Cost					7.848	0.000	13.693	0.000	14.609		Continuing	Continuing	

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME								
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat Arms Systems					C2086 Marine Enhancement Program (MEP)			
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	2.022	2.532	2.392	2.708	2.747	2.703	2.752	Cont	Cont
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) This program was formerly titled Soldier/Marine Enhancement. MEP provides Research, Development, Test and Evaluation funding for low visibility, low cost items. It focuses on items of equipment which will benefit the individual Marine by reducing the load, increasing survivability, enhancing safety and improving combat effectiveness. The emphasis of the program is on non-developmental item/commercial off the shelf (NDI/COTS) available items which can be quickly evaluated and fielded. This program is coordinated with the Army's Soldier Enhancement Program and the Special Operations Command.

PROGRAM ACCOMPLISHMENTS AND PLANS

FY 2001 Accomplishments

- (U) \$ 0.706 Continued to explore NDI equipment that will improve the combat effectiveness and enhance safety and survivability of the Individual Marine.
 - (U) \$ 0.555 Continued to explore clothing and individual equipment NDI categories.
 - (U) \$ 0.761 Continued to explore ground weapons, communications and command and control equipment NDI categories.
- (U) Total \$ 2.022

FY 2002 Planned Program

- (U) \$ 0.880 Continue to explore NDI equipment that will improve the combat effectiveness and enhance safety and survivability of the Individual Marine.
 - (U) \$ 0.834 Continue to explore clothing and individual equipment NDI categories.
 - (U) \$ 0.818 Continue to explore ground weapons, communications and command and control equipment NDI categories.
- (U) Total \$ 2.532

(U) FY 2003 Planned Program:

- (U) \$ 0.779 Continue to explore NDI equipment that will improve the combat effectiveness and enhance safety and survivability of the Individual Marine.
 - (U) \$ 0.844 Continue to explore clothing and individual equipment NDI categories.
 - (U) \$ 0.769 Continue to explore ground weapons, communications and command and control equipment NDI categories.
- (U) Total \$ 2.392

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		FY2001	FY2002	FY2003						
(U) FY 2002 President's Budget:		1.640	2.555							
(U) Adjustments from the President's Budget:										
(U) SBIR/STTR Transfer		-0.012								
(U) Execution Adjustment										
(U) Minor Affordability Adjustment			-0.023							
(U) Program Adjustment		0.394								
(U) FY 2003 President's Budget:		2.022	2.532	2.392						
CHANGE SUMMARY EXPLANATION:										
(U) Funding: See Above.										
(U) Schedule: Not Applicable.										
(U) Technical: Not Applicable.										
(U) B. OTHER PROGRAM FUNDING SUMMARY:										
	<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost	
(U)	PMC (BLI #221100) MEP	7.025	4.288	8.145	7.051	4.133	3.936	3.930	Continuing	
(U)	O&M Initial Issue Active	32.173	27.662	28.188	28.808	29.442	30.253	31.106	Continuing	
(U)	O&M Initial Issue Reserve	12.758	7.749	7.900	7.997	8.095			Continuing	
(U) Related RDT&E: PE 0604713A (Combat Feeding, Clothing and Equipment)										
(U) C. ACQUISITION STRATEGY: * An explanation of acquisition, management, and contracting strategies shall be provided for each project.										
Acquisition Strategies are program specific. They vary from modified NDI to short term developmental programs.										
(U) D. SCHEDULE PROFILE: N/A										

CLASSIFICATION:

Exhibit R-3 Cost Analysis					DATE: February 2002							
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME							
RDT&E, N /BA 7 Operational Sys Dev			0206623M Marine Corps Ground Combat Arms Systems		C2086 Marine Enhanced Program (MEP)							
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	MCCDC, Quantico, VA	2.076	0.037		0.095		0.050		Continuing	Continuing	
Integrated Logistics Support	Various	MISC	4.580	0.029		0.070		0.060		Continuing	Continuing	
Subtotal Support			6.656	0.066		0.165		0.110				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval	WR/RCP	MCTSSA, CamPen, CA	1.842	0.024	1Q01	0.054	1Q02	0.055	1Q03	Continuing	Continuing	
Developmental Test & Eval	WR/RCP	NCTRF, Aberdeen, MD	0.856	0.005	1Q01	0.018	1Q02	0.020	1Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	NATICK, Natick, MA	2.595	0.185	2Q01	0.290	2Q02	0.290	2Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	ARL/APG Aberdeen, MD	0.813	0.014	2Q01	0.035	2Q02	0.180	2Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	PPSC, Philadelphia, PA	0.050	0.005	3Q01	0.024	3Q02	0.026	3Q03	Continuing	Continuing	
Developmental Test & Eval	WR/RCP	MCAGCC 29 Palms, CA	0.359	0.010	2Q01	0.020	2Q02	0.019	2Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	NSMA, Washington DC	0.560	0.021	1Q01	0.035	1Q02	0.035	1Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	TACOM, Warren MI	0.220	0.021	1Q01	0.031	1Q02	0.033	1Q03	Continuing	Continuing	
Developmental Test & Eval	MIPR	NHRC, Crane, IN	1.623	0.357	2Q01	0.292	2Q02	0.295	2Q03	Continuing	Continuing	
Developmental Test & Eval	WR	2nd MARDIV, CamLej, NC	0.236	0.012	1Q01	0.025	1Q02	0.026	1Q03	Continuing	Continuing	
Developmental Test & Eval	WR	NCCOSC, San Diego, CA	0.710	0.036	2Q01	0.046	2Q02	0.045	2Q03	Continuing	Continuing	
Developmental Test & Eval	WR	NCSS, Panama City, FL	6.207	0.015	1Q01	0.027	1Q02	0.030	1Q03	Continuing	Continuing	
Developmental Test & Eval	WR	NSWC, Crane, IN	6.820	0.195	1Q01	0.247	1Q02	0.249	1Q03	Continuing	Continuing	
Developmental Test & Eval	WR	NAWC Air Div, Pax River, MD	0.950	0.176	1Q01	0.275	1Q02	0.276	1Q03	Continuing	Continuing	
Developmental Test & Eval	WR	NSWC, Indian Head, MD	0.566	0.010	3Q01	0.020	3Q02	0.021	3Q03	Continuing	Continuing	
Developmental Test & Eval	Various	MISC	8.988	0.206		0.296		0.120		Continuing	Continuing	
Subtotal T&E			33.395	1.292		1.735		1.720		Continuing	Continuing	
Remarks:												

CLASSIFICATION:

Exhibit R-3 Cost Analysis					DATE: February 2002							
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME							
RDT&E, N /BA 7 Operational Sys Dev			0206623M Marine Corps Ground Combat Arms Systems		C2086 Marine Enhanced Program (MEP)							
Cost Categories (Tailor to WBS, or System/Iter Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Eng Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Mngmnt Suppt											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			50.446	2.022		2.532		2.392		Continuing	Continuing	

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME				
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat Arms Systems				C2237 Amphibious Vehicle Test Branch (AVTB)				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	0.680	0.726	0.751	0.826	0.832	0.847	0.864	Cont	Cont
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) The Amphibious Vehicle Test Branch (AVTB) is a one-of-a-kind Department of Defense test facility for amphibious vehicles and supports the requirements of all Services. The AVTB conducts developmental, combined developmental/operational, and follow-on testing and evaluation of production hardware. It also conducts Product Assurance Testing and Substitute or alternative parts and material testing for amphibious vehicles and associated equipment. Because of its year-round temperate climate, diverse terrain, and 17 miles of coastline, the AVTB is ideal for the amphibious vehicle, as well as ship related testing. The AVTB is in close proximity to San Clemente island which is used frequently for live fire sea-to-shore testing and high-speed water testing. The AVTB is committed to testing product improvement programs, engineering change proposal design changes, and field change requests.

PROGRAM ACCOMPLISHMENTS AND PLANS

FY 2001 Accomplishments

- (U) \$ 0.550 Maintained, refurbished, upgraded, and replaced test equipment and instrumentation used to provide program support, supplies, and services at AVTB test site which supported scheduled Assault Amphibious Vehicle 7A1 (AAV7A1) "rebuild to standard" testing, Advanced Amphibious Assault Vehicle (AAAV) Development Testing, Light Armored Vehicle Service Life Extension Program as well as other Marine Corps mobility and mine warfare programs. Upgraded instrumentation for over the horizon capability in developing weapons systems which supported operational maneuver from the sea. Programmed on-site support, supplies, and services which supported Naval Sea System Command and Naval Mine Warfare Command for development testing of Navy mine countermeasures system. Provided services and support to the Department of Defense Common Test and Training Range Architecture workshops. These funds provided organic supply support including management operations, advertising, general accounting, and a maintenance float of equipment. Provided intermediate maintenance of organic non-developmental communication/ordnance equipment.
- (U) \$ 0.130 Provided funding for necessary services provided by Marine Corps Base, Camp Pendleton (MCB CAMPEN), California for electricity, heating, and other power charges; and long distance telephone support. Provided funding for calibration of laboratory test equipment and maintenance services provided by Marine Corps Logistics Base Barstow and 1st Force Service Support Group (FSSG).

(U) Total \$ 0.680

FY 2002 Planned Program

- (U) \$ 0.565 Maintenance, refurbishment, upgrade, and replacement of test equipment and instrumentation needed to provide program support, supplies, and services at AVTB test site to support scheduled Assault Amphibious Vehicle 7A1 (AAV7A1) "rebuild to standard" testing, Advanced Amphibious Assault Vehicle (AAAV) Development Testing, Light Armored Vehicle Service Life Extension Program as well as other Marine Corps mobility and mine warfare programs. Upgrade instrumentation for over the horizon capability in developing weapons systems to support operational maneuver from the sea. Program on-site support, supplies, and services to support Naval Sea System Command and Naval Mine Warfare Command for development testing of Navy mine countermeasures system. Provide services and support to the Department of Defense Common Test and Training Range Architecture workshops. These funds provide organic supply support including management operations, advertising, general accounting, and a maintenance float of equipment. Provide intermediate maintenance (third echelon) of organic non-developmental communication, electronic, and ordnance equipment.

R-1 SHOPPING LIST - Item No. 195

Exhibit R-2, RDT&E, N Budget Item Justification

(Exhibit R-2, page 29 of 40)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2002

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat Arms Systems	C2237 Amphibious Vehicle Test Branch (AVTB)

- (U) \$ 0.161 Provide funding for necessary services provided by Marine Corps Base, Camp Pendleton (MCB CAMPEN), California for electricity, heating, and other power charges; and long distance telephone support. Provide funding for calibration of laboratory test equipment and maintenance services provided by MCLB Barstow and 1 Force Service Support Group (FSSG).

(U) Total \$ 0.726

(U) FY 2003 Planned Program:

- (U) \$ 0.587 Maintenance, refurbishment, upgrade, and replacement of test equipment and instrumentation needed to provide program support, supplies, and services at AVTB test site to support scheduled and unscheduled Assault Amphibious Vehicle 7A1 (AAV7A1) component testing, Advanced Amphibious Assault Vehicle (AAAV) Development Testing, Light Armored Vehicle Service Life Extension Program as well as other Marine Corps mobility and mine warfare programs. Upgrade instrumentation for over the horizon capability in developing weapons systems to support operational maneuver from the sea. Program on-site support, supplies, and services to support Naval Sea System Command and Naval Mine Warfare Command for development testing of Navy mine countermeasures system. Provide services and support to the Department of Defense Common Test and Training Range Architecture workshops. These funds provide organic supply support including management operations, advertising, general accounting, and a maintenance float of equipment. Provide intermediate maintenance (third echelon) of organic non-developmental communication electronic and ordnance equipment.

- (U) \$ 0.164 Provide funding for necessary services provided by Marine Corps Base, Camp Pendleton (MCB CAMPEN), California for electricity, heating, and other power charges; and long distance telephone support. Provide funding for calibration of laboratory test equipment and maintenance services provided by MCLB Barstow and 1 Force Service Support Group (FSSG).

(U) Total \$ 0.751

(U) Project Change Summary:

	FY2001	FY2002	FY2003
(U) FY 2002 President's Budget:	0.717	0.732	
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.003		
(U) Execution Adjustment			
(U) Minor Affordability Adjustment		-0.006	
(U) Program Adjustment	-0.034		
(U) FY 2003 President's Budget:	0.680	0.726	0.751

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Dev	0206623M Marine Corps Ground Combat Arms Systems	C2237 Amphibious Vehicle Test Branch (AVTB)

(U) B. OTHER PROGRAM FUNDING SUMMARY: Not Applicable

<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) Related RDT&E: PE 0603611M (Marine Corps Assault Vehicles)								

(U) C. ACQUISITION STRATEGY:

Work will be lead in-house. Necessary contractor support will be provided by Marine Corps Base Camp Pendleton by using existing contracts. General Services Administration will be used for vehicle leasing contract.

(U) D. SCHEDULE PROFILE:

Testing conducted at AVTB includes all aspects of Marine Corps Assault Amphibious Vehicles. Testing planned for FY 02 and beyond includes MK 155 Minefield Breaching System, NBC overpressure system, RAM/RS (Reliability, Availability and Maintainability/Rebuild to Standard) Operational Testing Support and Production Assurance testing. Engineering Change Proposals (ECP) as required; upgrade instrumentation for over the horizon capability in developing weapons systems to support operational maneuver from the sea, support for the Light Armored Vehicle Service Life Extension Program; C4I integrated support for AAV Communications and 7 RAM/RS. AVTB will also support the testing of the Advanced Amphibian Assault Vehicle (AAAV) as directed, by DRPM AAA, during the Engineering & Manufacturing Development phase of the AAAV Program Development.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME				
RDT&E, N /BA-7 Operational Sys Development	0206623M Marine Corps Ground Combat/Supporting Arms Systems				C2503 Initial Issue				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	1.662	1.295	1.113	1.139	1.162	1.049	1.070	Cont	Cont
RDT&E Articles Qty									

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Initial Issue program provides Research, Development, Test and Evaluation of low visibility, low cost items with emphasis on non-developmental/commercially available items. Items approved for procurement will transition into the O&M Initial Issue program. Focus is on clothing and equipment items (i.e. improved jungle and desert boots, light weight helmet, combat boots, sleeping bags) which will benefit the individual Marine by reducing the load with less bulky, lightweight, comfortable equipment, increasing survivability and improving combat effectiveness. Initial Issue continues to explore the spectrum of technologies commercially available that can provide enhancement in individual protection, tactical mobility and application of state-of-the-art technologies through studies and testing.

PROGRAM ACCOMPLISHMENTS AND PLANS

FY 2001 Planned Program

- (U) \$ 1.474 Continued to validate and incorporate commercial technologies into individual combat clothing and equipment. Conducted comparative analysis through boot study (fatigue, shear force, injury rates, energy consumption) of new infantry combat boots and existing foot wear. Conducted study/analysis of the Army's Land Warrior program for commercial technology insertion to complement the Marine Corps Integral Combat System (our version of Land Warrior). Evaluated commercial power source/recharging systems through individual movement (Piezoelectrics). Evaluated and incorporated cost-effective commercial fabric technologies into the Battle Dress uniform.
- (U) \$ 0.078 Completed development and testing of the Forward Resusitative Surgery System. Continued operational assessment and provided test data to the Medical Community for acceptance.
- (U) \$ 0.110 Completed reconfiguration of two Digital Radiography (DR) prototypes incorporating field user recommendations.

(U) Total \$ 1.662

FY 2002 Planned Program

- (U) \$ 1.052 Continued the exploration of new commercial technologies that can be inserted into current body armor, load bearing, footwear and clothing systems to reduce weight, increase survivability, lethality and mobility. Both torso and head/neck ballistic studies will be conducted to assess blunt trauma/shock forces on the body and how ballistic materials/designs can afford the most protection while reducing weight. Modeling and simulation initiatives will enable the baselining of current equipment and configuration/compatibility management of new equipment initiatives. Funding went toward research and development of the Military Eye Protection System which will be designed to protect Marines' eyes from laser and ballistic threats.
- (U) \$ 0.243 Initiated and completed development of new Authorized Dental and Medical Allowance Lists to include new technology insertion and significantly reduce the weight and cube size.

(U) Total \$ 1.295

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2002
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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-7 Operational Sys Development	0206623M Marine Corps Ground Combat/Supporting Arms Systems	C2503 Initial Issue

(U) FY 2003 Planned Program:

- (U) \$ 1.113 Continue modeling and simulation efforts to assist in the engineering and design of new equipment in order to reduce weight and increase compatibility/utility on the battlefield. Additionally, modeling and simulation will help determine the optimal distribution of war-fighting equipment within the rifle squad and aid in configuring expeditionary warfighting capability sets. Conduct analysis on different materials and camouflage patterns in order to reduce visual, infra red, or thermal detection. Additional research and development efforts will investigate/validate the integration of communication and night optic capability with protective headgear.

(U)Total \$ 1.113

	FY2001	FY2002	FY2003
(U) FY 2002 President's Budget:	1.403	1.307	
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.002		
(U) Execution Adjustment	-0.164		
(U) Minor Affordability Adjustment		-0.012	
(U) Program Adjustment	0.425		
(U) FY 2003 President's Budget:	1.662	1.295	1.113

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) B. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC Line (BLI#652200) Field Med Equip **		3.369	9.491					

**Forward Resuscitative Surgery System & Digital Radiography are the procurement programs contained within PMC Field Medical Equipment and associated with Initial Issue.

(U) Related RDT&E: Not Applicable.

(U) C. ACQUISITION STRATEGY: * Initial Issue items are all non-ACAT programs and utilize various acquisition strategies. Initial Issue programs leverage heavily off of current developments and technology in commercial industry. As a result, government's R&D phase is relatively short. Contracting is performed by either Marine Corps Systems Command Contracting Directorate or the U.S. Army Natick Research, Development and Engineering Center via Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts. ID/IQ contracts are used to decrease the government risk, allow maximum contract flexibility and capitalize on the savings realized by utilizing Economic Order Quantities.

SHELTERS: The Initial Issue R&D Shelter acquisition strategy is to modify non-developmental Items (NDI) to further meet the requirements of the Marine Corps, to support development of multi-service items through inter-service agreements and to adopt Commercial-Off-the-Shelf (COTS)/NDI Marine Corps specific items.

(U) D. SCHEDULE PROFILE: Not Applicable.

CLASSIFICATION:

Exhibit R-3 Cost Analysis							DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N /BA 7 Operational Sys Development			0206623M Marine Corps Ground Combat/Supporting Arms Systems			C2503 Initial Issue						
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev											0.000	
Ancillary Hardware Dev											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Development/Tech Insertion	MIPR	USASSCOM	0.980	1.176	3Q/01	0.610	1Q/02	0.261	1Q/03	Continuing	Continuing	
Development/Tech Insertion	FFP	MCSC CTQ	0.314	0.110	3Q/01	0.310	2Q/02	0.517	2Q/03	Continuing	Continuing	
Subtotal Product Dev			1.294	1.286		0.920		0.778		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Subtotal Support											0.000	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval	MIPR	USASSCOM	0.251	0.249	3Q/01	0.253	3Q/02	0.214	2Q/03	Continuing	Continuing	
Tooling											0.000	
Field User Evaluations	FFP	MCSC CTQ	0.342								0.342	
Subtotal T&E			0.593	0.249		0.253		0.214		Continuing	Continuing	
Remarks:												

CLASSIFICATION:

Exhibit R-3 Cost Analysis						DATE: February 2002						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N /BA 7 Operational Sys Development			0206623M Marine Corps Ground Combat/Supporting Arms Systems			C2503 Initial Issue						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Eng Suppt	FFP/O	SVERDRUP	0.100	0.107	1Q/01	0.101	1Q/02	0.101	1Q/03	Continuing	Continuing	
Govt Engineering Suppt											0.000	
Program Mngmnt Suppt											0.000	
Travel	WR	MCSC Travel	0.020	0.020	1Q/01	0.021	1Q/02	0.020	1Q/03	Continuing	Continuing	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.120	0.127		0.122		0.121		Continuing	Continuing	
Remarks:												
Total Cost			2.007	1.662		1.295		1.113		Continuing	Continuing	

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Development	PROGRAM ELEMENT NUMBER AND NAME 26623M Marine Corps Ground Combat/Supt Arms				PROJECT NUMBER AND NAME C2928 HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)				
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	16.741	10.795	11.922	7.207	3.137	0.000	0.000	0.000	49.802
RDT&E Articles Qty	2								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
<p>HIMARS is a C-130 transportable, wheeled, indirect fire, rocket/missile system capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System Family of Munitions (MFOM). The system includes two Resupply Vehicles (w/MHE Crane) and two Resupply Trailers, and the MFOM. HIMARS will provide the Fleet Marine Force with 24 hour ground-based, responsive General Support/General Support Reinforcing/Reinforcing (GS/GSR/R) indirect fires which accurately engage targets at long range (45+KM) with high volumes of lethal fire under all weather conditions throughout all phases of combat operations ashore. HIMARS is a significant improvement over currently fielded ground fire support systems. During a 24 hour period the system will be expected to conduct multiple moves and multiple fire missions.</p> <p>HIMARS will satisfy the Marine Corps requirement for an indirect fire system that is responsive, maneuverable, and is capable of engaging targets at long range.</p>									
PROGRAM ACCOMPLISHMENTS AND PLANS									
FY 2001 Accomplishments:									
<ul style="list-style-type: none"> • (U) \$ 7.783 Purchased two HIMARS maturation launchers. (Deliver in FY02) • (U) \$ 2.678 Program Management. • (U) \$ 0.679 Engineering and Manufacturing Development. • (U) \$ 0.260 Rockets, reduced range practice. • (U) \$ 0.719 Multiple Launch Rocket System (MLRS) Joint Program Management/Government Furnished Equipment (GFE) Equip. • (U) \$ 1.584 Launcher and Family of Medium Tactical Vehicles (FMTV) testing/support equip. • (U) \$ 2.054 Purchased Resupply Vehicles & Trailers • (U) \$ 0.984 Training 									
(U) Total \$ 16.741									
FY 2002 Planned Program:									
<ul style="list-style-type: none"> • (U) \$ 5.521 Engineering and Manufacturing Development. Includes contractor support, USMC R&D effort. • (U) \$ 2.439 Program Management. • (U) \$ 0.426 Support Test and Evaluation Program with Army. Includes contractor support, USMC R&D effort. • (U) \$ 1.240 Systems test using equipment purchased with FY01 Congressional Enhancement. • (U) \$ 0.033 MLRS PMO Program Management. • (U) \$ 0.399 Launcher and Family of Medium Tactical Vehicles (FMTV) contractor support. • (U) \$ 0.260 Launcher and FMTV Annual Repairs. • (U) \$ 0.477 Training. 									
(U) Total \$ 10.795									

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Development	PROGRAM ELEMENT NUMBER AND NAME 26623M Marine Corps Ground Combat/Supt Arms	PROJECT NUMBER AND NAME C2928 HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)

(U) D. SCHEDULE PROFILE:

Fiscal Year	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Quarter	I II III IV								
MS A	◆								
MS B		◆							
Mat Launcher Delivery		◆							
US Army/USMC DT	◆			◆					
USMC OA		◆		◆					
MS C/LRIP Launcher Decision			◆						
LRIP GMLRS Decision			◆						
LRIP Launcher Delivery				◆					
LRIP GMLRS				◆	◆				
USMC OT				◆	◆				
Interim Capability					◆		◆		
FRP						◆			
IOC							◆		
FOC								◆	

<u>Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
(U) 026623M, RDT&E,N	16.741	10.795	11.922	7.207	3.137	0.000	0.000	49.802
(U) PMC, 205001, EIFSGWS (HIMARS)	0.000	0.000	7.869	4.153	4.560	140.503	191.746	348.831
(U) PMC, 304001, HIMARS ROCKETS	0.000	0.000	0.000	0.000	24.469	112.288	176.077	312.834

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis							DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7 Operational Sys Development			PROGRAM ELEMENT 0206623M Marine Corps Ground Combat/Supt Arms				PROJECT NUMBER AND NAME C2928 HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev	SS/CPAF	Lockheed Martin, Dallas, TX	0.000	10.003	12/20/00	2.058	01/02	4.244	01/04	2.755	19.060	
Primary Hardware Dev	FFP	TACOM, Warren, MI	0.000	0.000		2.521	03/02	0.320	01/04	2.145	4.986	
Ancillary Hardware Dev	MIPR	US Army R&D (MSL),Huntsville,AL	0.000	0.300	01/02/01	0.900	11/01	0.624	01/04	1.500	3.324	
Primary Hardware Dev	SS/CPAF	Oshkosh Truck Corp, Oshkosh,WI	0.000	2.054	07/27/01	0.400	11/01	1.000	01/04	0.000	3.454	
Systems Engineering	WR	NSWC-Carderock,MD	0.000	0.028	02/28/01	0.100	10/01	0.400	01/04	0.000	0.528	
Systems Engineering	WR	NSWC-Dahlgren, VA	0.000	0.311	11/24/00	0.098	10/01	0.700	01/04	0.000	1.109	
Systems Engineering	FFP	John J. McMullen Assocs,Pittsb.,PA	0.000	0.129	04/15/01	0.000		0.300	10/03	0.000	0.429	
Subtotal Product Dev			0.000	12.825		6.077		7.588		6.400	32.890	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip	WR	MARCORSYSCOM,Quantico, VA	0.000	0.699	02/28/01	2.091	10/02	0.300	10/03	1.820	4.910	
Development Support Equip	WR	MCCDC, Quantico, VA	0.000	0.945	04/30/01	0.000				0.000	0.945	
Program Support	MIPR	US Army-MSL,Huntsville, AL	0.000	0.450	01/02/01	0.133	11/02			0.315	0.898	
Training Development Support	FFP	TBD	0.000	0.974	07/27/01	0.360	12/01	0.329	12/03	0.000	1.663	
Integrated Logistics Support	FFP	BAE Systems, Stafford, VA	0.000	0.368	01/31/01	0.000		0.250	10/03	0.000	0.618	
Integrated Logistics Support	CPAF	Lockheed Martin						0.340	10/03		0.340	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Support			0.000	3.436		2.584		1.219		2.135	9.374	
Remarks:												

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis							DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N /BA-7 Operational Sys Development			0206623M Marine Corps Ground Combat/Supt Arms				C2928 HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)					
Cost Categories (Tailor to WBS, or System/Iter Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Operational Test & Eval	WR	Cold Region Test Center, Ft Greely,AK		0.000		0.032	11/01	0.400	12/03	0.000	0.432	
Developmental Test & Eval	FFP	KTR SPT TMI		0.000		0.105	12/01			0.054	0.159	
Developmental Test & Eval	WR	Redstone Tech Test Ctr,Huntsville,AL		0.000		0.115	10/01			0.000	0.115	
Developmental Test & Eval	FFP	RAM GEN SPT		0.000		0.032	12/01			0.011	0.043	
Developmental Test & Eval	WR	Aberdeen Proving Grd,Aberdeen,MD		0.063	05/18/01	0.078	11/01	0.400	12/03	0.000	0.541	
Developmental Test & Eval	CPAF	Systems Test - TBD		0.000		1.240	03/02	0.000		0.000	1.240	
Developmental Test & Eval	WR	TACOM, Warren, MI		0.044	06/13/01						0.044	
Developmental Test & Eval	WR	User Evaluation - TBD		0.000		0.000		0.900	12/03	0.250	1.150	
Operational Test & Eval	CPAF	KTR SPT - OT		0.000		0.053	07/02			0.490	0.543	
Operational Test & Eval	TRAVEL	Travel - OT		0.000		0.011	10/01			0.016	0.027	
Operational Test & Eval	WR	OT Test Conduct		0.000		0.000		1.050	12/03	0.660	1.710	
Operational Test & Eval	CPAF	OT Ammo-Lockheed Martin,Dallas,TX		0.000		0.000				0.328	0.328	
Subtotal T&E			0.000	0.107		1.666		2.750		1.809	6.332	
Remarks:												
Cost Categories (Tailor to WBS, or System/Iter Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Program Mngmnt	WR	MCSC, QUANTICO		0.116	2/28/01	0.348	10/02				0.464	
Program Mngmnt	WR	MCCDC, QUANTICO		0.105	4/30/01	0.000					0.105	
Program Mngmnt	MIPR	US ARMY, AL		0.050	1/02/02	0.116	11/01				0.166	
Program Mngmnt	MIPR	FT. STILL, TRNG		0.010	07/27/01	0.004	12/01	0.007	10/03		0.021	
Program Mngmnt	FFP	BAE SYSTEMS		0.092	1/31/01			0.358	10/03		0.450	
Subtotal Management			0.000	0.373		0.468		0.365		0.000	1.206	
Remarks:												
Total Cost				16.741		10.795		11.922		10.344	49.802	