EXHIBIT R-2, RDT&E Budget Item Justification						DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY: **RDT&E,N/BA-4 Advanced Component Dev. and Prototype**				R-1 ITEM NOMENCLATURE 0603611M Marine Corps Assault Vehicles			
COST ($in Millions)	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2011**
B0020 EXPEDITIONARY FIGHTING VEHICLE (EFV)	**237.512**	**249.727**	**188.306**	**171.923**	**94.120**	**52.438**	**14.922**
9999 Congressional Add	**1.640**						
Total	**239.152**	**249.727**	**188.306**	**171.923**	**94.120**	**52.438**	**14.922**

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

B0020

The Expeditionary Fighting Vehicle (EFV) Program will field a successor to the Marine Corps' current amphibious vehicle, the Assault Amphibious Vehicle Model 7A1 (AAV7A1). The EFV will provide the principal means of tactical surface mobility for the Marine Air Group Task Force (MAGTF) during both ship-to-objective maneuvers and sustained combat operations ashore as part of the Navy and Marine Corps concepts within the Expeditionary Maneuver Warfare capstone. The EFV will provide the Marine Corps with the capability to execute the full spectrum of military missions from humanitarian operations to conventional combat operations. The EFV replaces the AAV7A1 Vehicle, which was originally fielded in the early 1970s. The EFV is a self-deploying, high-water speed, amphibious, armored, tracked vehicle capable of operating in all weather as well as Nuclear, Biological, and Chemical (NBC) environments.

The EFV program is a ACAT-1D program managed by the Marine Corps. The EFV is the next generation of Marine Corps Assault Vehicles being developed to satisfy the requirements of the 21st Century Marine War fighters. Along with the Landing Craft Air Cushion (LCAC) and the MV-22 Osprey, the EFV will provide the Marine Corps with the tactical mobility assets required to spearhead the concepts within the Expeditionary Maneuver Warfare capstone. Acquisition of the EFV is critical to the Marine Corps. The total EFV requirement is for 1,013 weapon systems. The EFV program remains the Marine Corps number one priority ground system acquisition.

The program received approval to enter the Systems Development and Demonstration (SDD) Phase (formerly Engineering and Manufacturing Development) of the acquisition process during the Milestone II Defense Acquisition Board Readiness Meeting held on 26 November 2000. All program exit criteria were successfully met or exceeded. The SDD Phase (2001 through 2007) will include validation of manufacturing and production processes, fabrication and testing of SDD vehicles, and finalizing and implementing the Life Cycle Management for EFV.

The Congressional Add is in project B9636 DISPLAY TECHNOLOGY PROGRAM for Integration & Testing of BETA smart display design efforts.

EXHIBIT R-2a, RDT&E Project Justification				DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-4 Advanced Component Dev. and Prototypes**	PROGRAM ELEMENT NUMBER AND NAME **0603611M Marine Corps Assault Vehicles**	PROJECT NUMBER AND NAME: **B0020 Expeditionary Fighting Vehicle (EFV)**		

COST ($ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to Complete	Total Program
B0020 EXPEDITIONARY FIGHTING VEHICLE (EFV)		**237.512**	**249.727**	**188.306**	**171.923**	**94.120**	**52.438**	**14.922**	**Cont**	**Cont**
9999 CONGRESSIONAL ADD		**1.640**								
TOTAL		**239.152**	**249.727**	**188.306**	**171.923**	**94.120**	**52.438**	**14.922**	**Cont**	**Cont**

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

The Expeditionary Fighting Vehicle (EFV) Program will field a successor to the Marine Corps' current amphibious vehicle, the Assault Amphibious Vehicle Model 7A1 (AAV7A1). The EFV will provide the principal means of tactical surface mobility for the Marine Air Group Task Force (MAGTF) during both ship-to-objective maneuvers and sustained combat operations ashore as part of the Navy and Marine Corps concepts within the Expeditionary Maneuver Warfare capstone. The EFV will provide the Marine Corps with the capability to execute the full spectrum of military missions from humanitarian operations to conventional combat operations. The EFV replaces the AAV7A1 Vehicle, which was originally fielded in the early 1970s. The EFV is a self-deploying, high-water speed, amphibious, armored, tracked vehicle capable of operating in all weather as well as Nuclear, Biological, and Chemical (NBC) environments.

The EFV program is a ACAT-1D program managed by the Marine Corps. The EFV is the next generation of Marine Corps Assault Vehicles being developed to satisfy the requirements of the 21st Century Marine War fighters. Along with the Landing Craft Air Cushion (LCAC) and the MV-22 Osprey, the EFV will provide the Marine Corps with the tactical mobility assets required to spearhead the concepts within the Expeditionary Maneuver Warfare capstone. Acquisition of the EFV is critical to the Marine Corps. The total EFV requirement is for 1,013 weapon systems. The EFV program remains the Marine Corps number one priority ground system acquisition.

The program received approval to enter the Systems Development and Demonstration (SDD) Phase (formerly Engineering and Manufacturing Development) of the acquisition process during the Milestone II Defense Acquisition Board Readiness Meeting held on 26 November 2000. All program exit criteria were successfully met or exceeded. The SDD Phase (2001 through 2007) will include validation of manufacturing and production processes, fabrication and testing of SDD vehicles, and finalizing and implementing the Life Cycle Management for EFV.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST ($ in Millions)	**FY2005 ***	**FY2006**	**FY2007**	
Accomplishment/Effort Subtotal Cost	**186.201**	**202.161**	**154.916**	
RDT&E Articles Qty				

(U) Fabrication of SDD phase prototypes. Design development. Developmental Testing. Survivability Program. SDD prototype shakedown testing. Regenerative Filtration Technology, FLIR Thermal Imager, MK46/FLIR Upgrade and Display Technology Program Congressional Adds.

FY05: Continue design development, manufacturing planning, and producibility design enhancements of the EFV(P) and EFV(C) designs. Continue the EFV survivability program. Complete fabrication and delivery of SDD prototypes. Perform tasks for FLIR Thermal Imager, Regenerative Filtration Technology, and the MK 46 Weapons Systems/FLIR upgrade. Integration & Testing of BETA smart display design efforts.

* Note: Includes $1.640 of Display Technology Program (Congressional Add, Project B9636).

FY06: Continue design development, manufacturing planning, and producibility design enhancements of the EFV(P) and EFV(C) designs. Continue the EFV survivability program. Support Development Testing (DT) and Reliability/Availability/Maintainability (RAM) testing, support MS C Operational Assessment (OA); review and analyze OA results; process, design, and incorporate modifications identified. Procurement of test spares. Refurbishment of SDD vehicles. Development of Integrated Electronic Technical Manuals (IETMs).

FY07: Continue design development, manufacturing planning, and producibility design enhancements of the EFV(P) and EFV(C) designs. Continue the EFV survivability program. Continue test support and design, integration and testing of MS C OA identified modifications. Continue development of Integrated Electronic Technical Manuals (IETMs).

EXHIBIT R-2a, RDT&E Project Justification			DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-4 Advanced Component Dev. and Prototypes**	PROGRAM ELEMENT NUMBER AND NAME **0603611M Marine Corps Assault Vehicles**	PROJECT NUMBER AND NAME: **B0020 Expeditionary Fighting Vehicle (EFV)**	

COST ($ in Millions)	FY2005	FY2006	FY2007	
Accomplishment/Effort Subtotal Cost	7.234	7.578	8.432	
RDT&E Articles Qty				

(U) Continue to provide in-house technical support.

COST ($ in Millions)	FY2005	FY2006	FY2007	
Accomplishment/Effort Subtotal Cost	7.413	6.090	6.545	
RDT&E Articles Qty				

(U) Continue to provide program support to coordinate and update program planning, program analysis, and program execution.

COST ($ in Millions)	FY2005	FY2006	FY2007	
Accomplishment/Effort Subtotal Cost	20.611	14.895	0.000	
RDT&E Articles Qty				

(U) Develop training courseware, devices and simulators.

FY05: Continue development of EFV training devices/simulators. Continue development of EFV training courseware.

FY06: Complete development of EFV training devices/simulators and EFV training courseware.

COST ($ in Millions)	FY2005	FY2006	FY2007	
Accomplishment/Effort Subtotal Cost	17.693	19.003	18.413	
RDT&E Articles Qty				

(U) Ballistic Testing. DT/OT. RAM-D Testing. EOA

FY05: Conduct Component Ballistic Testing. Continue DT of SDD prototypes. Complete Lethality Testing of MK-46 weapon station.

FY06: Conduct P Variant Controlled Damaged Testing. Continue DT of SDD prototypes. Conduct Operational Testing.

FY07: Conduct C Variant Controlled Damaged Testing. Continue DT of SDD prototypes. Conduct Operational Testing. Conduct full up system Level Live Fire Testing.

	FY2005	FY2006	FY2007	
(U) Total $	**239.152**	**249.727**	**188.306**	

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-4 Advanced Component Dev. and Prototypes**	PROGRAM ELEMENT NUMBER AND NAME **0603611M Marine Corps Assault Vehicles**	PROJECT NUMBER AND NAME: **B0020 Expeditionary Fighting Vehicle (EFV)**

(U) PROJECT CHANGE SUMMARY:

	FY 2005	FY 2006	FY 2007
(U) FY 2006 President's Budget:	243.058	253.675	187.456
(U) Adjustments from the President's Budget:			
(U) Congressional Program Adjustments	-0.186	-2.652	
(U) SBIR/STTR Transfer	-5.360		
(U) Display Technology Congressional Add	1.640		
(U) Sec. 8026(f) FFRDC		-0.141	
(U) Sec. 8125 Revised Economic Assumption		-1.155	
(U) Inflation			0.833
(U) CIVPERS Pay Raise Adj			0.017
(U) FY 2007 President's Budget:	239.152	249.727	188.306

CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 2005 net decrease of $3.906M reflects decreases of $5.360M for SBIR and $.186M for Congressional Reductions (Dept of Energy) and an increase of $1.640 for Display Technology .

FY 2006 net decrease of $3.948M reflects decreases of $2.652M for Congressional Reductions, $0.141 for FFRDC and $1.155 for Revised Economic Assumptions

FY 2007 net increase of $0.850 reflects $0.833 for Inflation and $0.017 for Pay Raise Adjustments

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY2005	FY2006	FY2007	FY2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
(U) PANMC, BLI #147500, EFV	2.462	5.662	9.524	28.789	26.278	15.581	15.957	550.206	654.459
(U) PMC BA2, BLI #202200, EFV	52.457	28.747	256.204	268.444	411.766	626.815	1,073.949	6,932.000	9,764.067
(U) PMC BA7 (Spares), BLI (NA), EFV	-	0.000	9.708	8.456	12.404	17.359	43.150	378.717	470.295
(U) PMC, EFV Totals	52.457	28.747	265.912	276.900	424.170	644.174	1,117.099	7,310.717	10,234.362
(U) MILCON P-041	-	-	2.320	-	-	-	-		2.320
(U) MILCON P-042	-	-	-	22.737	-	-	-		22.737
(U) MILCON P-417	-	-	-	-	3.016	-	-		3.016
(U) REMAINING EFV MCON	-	-	-	-	-	-	-	41.428	41.428
(U) MILCON, EFV Totals	0.000	0.000	2.320	22.737	3.016	0.000	0.000	41.428	69.501

(U) Related RDT&E:

(U) PE 0206623M (Marine Corps Ground Combat/Supporting Arms Systems), Project C0021, AAV7A1.

(U) PE 0206623M (Marine Corps Ground Combat/Supporting Arms Systems), Project B2237, AVTB.

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-4 Advanced Component Dev. and Prototypes**	PROGRAM ELEMENT NUMBER AND NAME **0603611M Marine Corps Assault Vehicles**	PROJECT NUMBER AND NAME: **B0020 Expeditionary Fighting Vehicle (EFV)**

(U) D. ACQUISITION STRATEGY:

The EFV Program acquisition strategy includes the extensive use of test assets, models, simulation, and advanced technology research to optimize vehicle design, reduce Total Ownership Cost (TOC), and control vehicle unit cost. Three fully functional PDRR prototypes were developed and have undergone extensive developmental testing to further vehicle maturity. During the SDD phase of the program, nine prototype vehicles will be manufactured and tested extensively in developmental and operational tests. A tenth vehicle will be manufactured for use during Full Up System Level Lethality testing planned to begin in FY07. Following the LRIP decision review, LRIP vehicles will be delivered in FY08 and FY09 for use during Initial Operational Test and Evaluation (IOT&E). Initial Operational Capability (IOC) and Full Operational Capability (FOC) will occur in FY10 and FY20, respectively.

The EFV management strategy is event driven, designed to ensure a logical progression through the EFV acquisition to reduce risk, ensure affordability, and provide adequate information to decision makers regarding acquisition progress. The EFV Program team is a partnership of government and industry experts, committed to developing the most versatile combat vehicle, providing the optimum balance of combat effectiveness, affordability, innovation, and technology. The program Integrated Product Teams (IPTs), composed of contractors, sub-contractors, Marines, and government civilians, are the foundation of the EFV acquisition management process. The government, prime contractor, and major subcontractors are co-located in a highly integrated communication environment that facilitates proactive decision-making processes and flexible execution of plans to support these teams and product development.

Cost as an independent variable (CAIV) has been institutionalized throughout the program and as such is an integral consideration in all trade studies and decisions. The program has had a highly integrated and extensive test approach since its inception which has included a very strong engineering-model and prototype testing program supported by extensive modeling and simulation techniques which is intended to continue throughout SDD. As a Program Management Oversight for Life Cycle Support pilot program, the program office management strategy includes planning for life cycle support once the system is fielded to more efficiently manage and optimize operating and support requirements and reduce overall program cost.

The program's contracting approach for the EFV is to award the vast majority of the work to one prime contractor, competitively selected in 1996. GDLS operating through its division General Dynamics Amphibious System will be responsible for designing and producing the vehicle and providing support for testing from PDRR through LRIP. Contracts for Government Furnished Property will be kept to a minimum and will include only property which could not otherwise be available to the contractor. Local Area Network support contract is currently provided by an 8(a) firm. Contract support for programmatic and technical support was competitively awarded in September 2003 as a cost plus fixed-fee contract and will continue through FY08. The Life Cycle Support Contract is scheduled for award during FY08 for a portion of the initial operations and maintenance support for the fielded EFVs.

(U) E. MAJOR PERFORMERS:

FY 03-07 - General Dynamics, Woodbridge, VA. Validation of manufacturing and production processes, fabrication and testing of SDD vehicles, and finalizing and implementing Life Cycle Management. Awarded Feb 01.

CLASSIFICATION:

Exhibit R-3 Cost Analysis								DATE: FEBRUARY 2006						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4 Advanced Component Development and Prototypes			PROGRAM ELEMENT NUMBER AND NAME 0603611M Marine Corps Assault Vehicles					PROJECT NUMBER AND NAME B0020 Expeditionary Fighting Vehicle (EFV)						
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
PDRR Contract	CPAF	GDLS - PDRR Award	399.703									Cont	Cont	399.703
SDD Contract	CPAF	GDLS - SDD Award	680.116	177.899	1/	197.626	1/	151.466	1/			Cont	Cont	1,207.107
Regenerative Filtration	CPAF	Army, Edgewod Chem/Bio Ctr		3.327	2Q									3.327
Survivability Contract	Unknown	NSMA, Arlington, VA	15.132	3.335	2Q	4.535	1Q	3.450	1Q					26.452
Display Technology	TBD	TBD		1.640	2Q FY06									
Subtotal Program Dev Spt			1,094.951	186.201		202.161		154.916				Cont	Cont	
Remarks: **1/ The SDD contract is for the entire SDD effort and is incrementally funded.**														
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Program Support		EG&G, Manassas, VA	23.256									Cont	Cont	24.000
Program Support	CPFF	EG&G, Manassas, VA	4.173	4.212	1Q	4.296	1-2Q	4.382	1-2Q			Cont	Cont	17.063
Program Support		Various Government Contracts	17.602	3.201	2/	1.794	2/	2.163	2/			Cont	Cont	
Training devices/simulators	CPAF	GDLS	11.070	20.611	2Q	14.895	2Q	0.000				Cont	Cont	46.717
Subtotal Program Support			56.101	28.024		20.985		6.545				Cont	Cont	
2/ Various contract award dates.				0										
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Testing	N/A	Various Locations	39.946	17.693	3/	19.003	3/	18.413	3/			Cont	Cont	
Subtotal T&E			39.946	17.693		19.003		18.413				Cont	Cont	
Remarks: **3/ Various contract award dates.**														

CLASSIFICATION:

Exhibit R-3 Cost Analysis								DATE: FEBRUARY 2006						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4 Advanced Component Development and Prototypes			PROGRAM ELEMENT NUMBER AND NAME 0603611M Marine Corps Assault Vehicles					PROJECT NUMBER AND NAME B0020 Expeditionary Fighting Vehicle (EFV)						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete	Total Cost	Target Value of Contract
In-house technical support		Various Government Labs	77.608	5.198	4/	5.570	4/	6.202	4/			Cont	Cont	
Mgmt & Prof Support		MITRE CORP, McClean, VA	11.526	2.036	1Q	2.008	1Q	2.230	1Q			Cont	Cont	
Subtotal Management			89.134	7.234		7.578		8.432				Cont	Cont	
Remarks: **4/ Various contract award dates.**														
Total Cost			1,280.132	239.152		249.727		188.306				Cont	Cont	

Exhibit R-4/4a Schedule Profile/Detail		DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4 Advanced Component Development and Prototypes	PROGRAM ELEMENT NUMBER AND NAME 0603611M Marine Corps Assault Vehicles	PROJECT NUMBER AND NAME B0020 Expeditionary Fighting Vehicle (EFV)

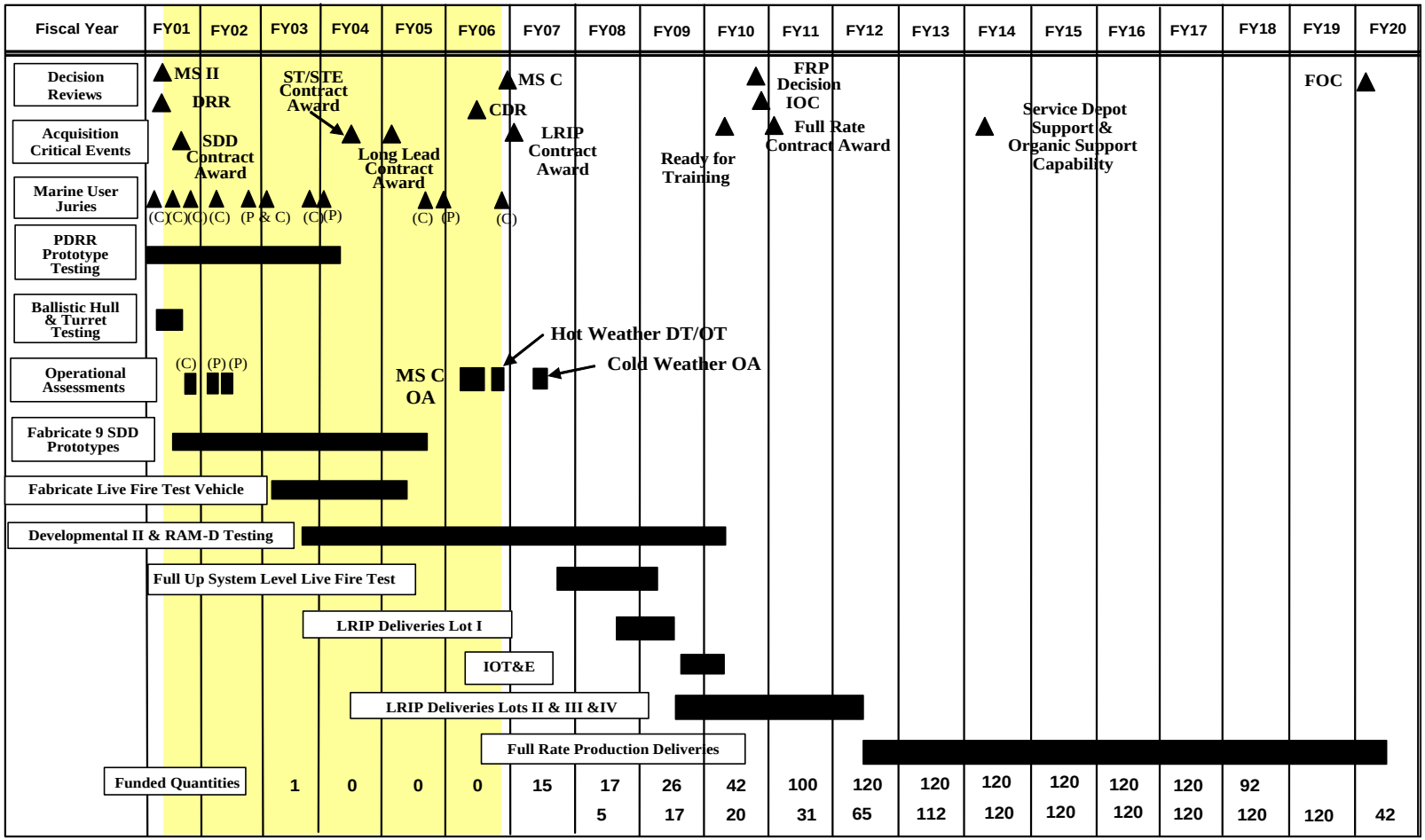

Exhibit R-4/4a Schedule Profile/Detail				DATE: FEBRUARY 2006					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /BA-4 Advanced Component Development and Prototypes**	PROGRAM ELEMENT NUMBER AND NAME **0603611M Marine Corps Assault Vehicles**			PROJECT NUMBER AND NAME **B0020 Expeditionary Fighting Vehicle (EFV)**					
SCHEDULE DETAIL		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
MS C				4Q					
FRP Decision								4Q	
IOC								4Q	
PDRR Prototype Testing		1-2Q							
Operational Assessments				2-4Q	2Q				
Fabrication of 9 Prototypes		1-4Q	1-3Q						
Fabricate Live Fire Test Vehicle		1-4Q	1-2Q						
Developmental II & RAM-D Testing		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q	
CDR				2Q					
LRIP Contract Award					1Q				
Full Up System Level Live Fire Test					3-4Q	1-4Q	1-2Q		
LRIP Deliveries Lot 1						3-4Q	1-3Q		
IOT&E							3-4Q	1-2Q	
Ready for Training								2Q	
LRIP Deliveries Lots II & III & IV							3-4Q	1-4Q	1-4Q
Full Rate Contract Award									1Q