

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: FEBRUARY 2003			
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 Advanced Amphibious Assault Vehicle (AAAV)				
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
B0020 ADVANCED AMPHIBIOUS ASSAULT VEHICLE	252.634	270.255	240.695	237.819	184.358	164.024	72.013	14.612	Cont	Cont
Quantity of RDT&E Articles		5	4							
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:										
<p>The Advanced Amphibious Assault Vehicle (AAAV) Program will field a successor to the Marine Corps' current amphibious vehicle, the Assault Amphibious Vehicle Model 7A1 (AAV7A1). The AAAV will provide the principal means of tactical surface mobility for the Marine Air Group Task Force (MAGTF) during both ship-to-objective maneuvers and subsequent combat operations ashore as part of the Navy and Marine Corps concepts within the Expeditionary Maneuver Warfare capstone. The AAAV will provide the Marine Corps with the capability to execute the full spectrum of military missions from humanitarian operations to conventional combat operations. The AAAV replaces the AAV7A1 Vehicle, which was originally fielded in the early 1970s. The AAAV 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.</p> <p>The AAAV program is the only ACAT-1D program managed by the Marine Corps. The AAAV is the next generation of Marine Corps Assault Vehicles being developed to satisfy the requirements of the 21st Century Marine Warfighters. Along with the Landing Craft Air Cushion (LCAC) and the MV-22 Osprey, the AAAV will provide the Marine Corps with the tactical mobility assets required to spearhead the concepts within the Expeditionary Maneuver Warfare capstone. Acquisition of the AAAV is critical to the Marine Corps. The total AAAV requirement is for 1,013 weapon systems. The AAAV program remains the Marine Corps number one priority ground system acquisition.</p> <p>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 AAAV.</p>										
(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:										
COST (\$ in Millions)		FY2002	FY2003	FY2004	FY2005					
Accomplishment/Effort Subtotal Cost		229.994	243.424	208.150	188.773					
RDT&E Articles Qty			5	4						
(U) Fabrication of SDD phase prototypes. Design development. Developmental Testing. Survivability Program. SDD prototype shakedown testing.										
<p>FY02: Initiate fabrication of the SDD phase prototypes. Continue design development of the AAAV (P) and AAAV (C). Continue Developmental Testing (DT) of PDRR prototypes. Continue AAAV survivability program.</p> <p>FY03: Initiate contractor/government shakedown testing of SDD prototypes. Continue design development, manufacturing planning, and producibility design enhancements of the AAAV(P) and AAAV(C) designs. Continue the AAAV survivability program. Continue fabrication and start delivery of SDD prototypes.</p> <p>FY04: Continue design development, manufacturing planning, and producibility design enhancements of the AAAV(P) and AAAV(C) designs. Continue the AAAV survivability program. Continue/complete fabrication and delivery of SDD prototypes.</p> <p>FY05: Continue design development, manufacturing planning, and producibility design enhancements of the AAAV(P) and AAAV(C) designs. Continue the AAAV survivability program. Complete fabrication and delivery of SDD prototypes.</p>										

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: FEBRUARY 2003	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME:			
RDTE, N /BA-4 Advanced Component Dev. and Prototypes	0603611M Marine Corps Assault Vehicles	B0020 Advanced Amphibious Assault Vehicle (AAAV)			
COST (\$ in Millions)	FY2002	FY2003	FY2004	FY2005	
Accomplishment/Effort Subtotal Cost	10.184	2.184	4.939	5.338	
RDT&E Articles Qty					
(U) Continue to provide in-house technical support.					
COST (\$ in Millions)	FY2002	FY2003	FY2004	FY2005	
Accomplishment/Effort Subtotal Cost	7.461	6.833	4.203	4.029	
RDT&E Articles Qty					
(U) Continue to provide program support to coordinate and update program planning, program analysis, and program execution.					
COST (\$ in Millions)	FY2002	FY2003	FY2004	FY2005	
Accomplishment/Effort Subtotal Cost	0.800	8.361	8.385	11.479	
RDT&E Articles Qty					
(U) Develop training courseware, devices and simulators.					
FY02: Initiate development of AAAV training courseware.					
FY03: Initiate development of AAAV training devices/simulators. Continue development of AAAV training courseware.					
FY04: Continue development of AAAV training devices/simulators. Continue development of AAAV training courseware.					
FY05: Continue development of AAAV training devices/simulators. Continue/Complete development of AAAV training courseware.					
COST (\$ in Millions)	FY2002	FY2003	FY2004	FY2005	
Accomplishment/Effort Subtotal Cost	4.195	9.453	15.018	28.200	
RDT&E Articles Qty					
(U) Ballistic Vulnerability testing. RAM-D testing. EOA.					
FY02: Conduct RAM-D testing of PDRR prototypes. Complete EOA.					
FY03: Initiate Ballistic Vulnerability testing of one PDRR prototype. Initiate DT of SDD prototypes. Initiate Joint Live Fire Testing of MK-46 weapon station.					
FY04: Complete Ballistic Vulnerability Testing of PDRR prototype. Continue DT of SDD prototypes. Continue Joint Live Fire Testing of MK-46 weapon station.					
FY05: Continue DT of SDD prototypes. Conduct Operational Testing. Complete Joint Live Fire Testing of MK-46 weapon station.					
COST (\$ in Millions)	FY2002	FY2003	FY2004	FY2005	
(U) Total \$	252.634	270.255	240.695	237.819	

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2003
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 Advanced Amphibious Assault Vehicle (AAAV)

(U) PROJECT CHANGE SUMMARY:										
	FY2002	FY2003	FY 2004	FY 2005						
(U) FY 2003 President's Budget:	260.627	272.092	246.698	126.083						
(U) Adjustments from the President's Budget:										
(U) Congressional Program Reductions	-1.277	-6.512								
(U) Congressional Rescissions										
(U) Congressional Increases		4.675								
(U) Inflation/Pricing Adjustments			-6.003	-5.464						
(U) SBIR/STTR Transfer	-6.716									
(U) Program Adjustment				117.200						
(U) FY 2004/2005 President's Budget:	252.634	270.255	240.695	237.819						
CHANGE SUMMARY EXPLANATION:										
(U) Funding:	FY 2002 reflects a decrease of \$6.716M for SBIR, and Congressional pro-rata reductions of \$1.277. FY 2003 reflects Congressional pro-rata reductions of \$6.512M and a Congressional increase of \$4.675M. FY04 reflects inflation reductions and NWCF pricing adjustments. FY 2005 reflects inflation reductions, NWCF pricing adjustments, and an internal Marine Corps realignment of \$117.2M.									
(U) Schedule:	AAAV program schedule is adjusted to add one year to accommodate robust Operational Testing necessary for a successful MS C, Low Rate Initial Production (LRIP) decision. Concurrently, LRIP moved from FY05 to FY06 and IOC is now planned for 2008.									
(U) Technical:	Not Applicable									
(U) C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY 2009	To Compl	Total Cost
(U) PANMC, BLI #147500, AAAV	-	0.000	0.000	2.536	5.824	9.470	28.275	14.419	399.771	460.295
(U) PMC BA2, BLI #202200, AAAV	-	16.490	97.915	67.896	240.320	267.451	545.568	829.742	6,191.165	8,256.547
(U) PMC BA7 (Spares), BLI (NA), AAAV	-	0.501	-	-	9.076	9.568	19.421	29.483	247.599	315.648
(U) PMC, AAAV Totals	-	16.991	97.915	67.896	249.396	277.019	564.989	859.225	6,438.764	8,572.195
(U) MILCON P-038	-	28.344	-	-	-	-	-	-	-	28.344
(U) MILCON P-042	-	-	-	-	-	10.647	-	-	-	10.647
(U) MILCON P-041	-	-	-	-	-	3.177	-	-	-	3.177
(U) MILCON P-1010	-	-	-	-	-	-	-	-	7.048	7.048
(U) REMAINING AAAV MCON	-	-	-	-	-	-	-	-	31.106	31.106
(U) MILCON, AAAV Totals	0.000	28.344	0.000	0.000	0.000	13.824	0.000	0.000	38.154	80.322
(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, AVTD.										

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2003
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 Advanced Amphibious Assault Vehicle (AAAV)
<p>(U) D. ACQUISITION STRATEGY:</p> <p>The AAAV 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), vehicle unit cost, and add flexibility to the program schedule. Three mature PDRR prototypes were developed and are currently undergoing developmental testing to further vehicle maturity. During the SDD phase of the program, nine vehicles will be manufactured. A tenth vehicle will be manufactured for use during Full Up System Level Live Fire testing planned to begin in FY06. Following the LRIP decision review, LRIP vehicles will be developed in FY06 for use during Initial Operational Test and Evaluation (IOT&E). Initial Operational Capability (IOC) and Full Operational Capability (FOC) will occur in FY08 and FY18, respectively.</p> <p>The AAAV management strategy is event driven, designed to ensure a logical progression through the AAAV acquisition to reduce risk, ensure affordability, and provide adequate information to decision makers regarding acquisition progress. The AAAV 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 AAAV 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.</p> <p>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.</p> <p>The program's contracting approach for the AAAV is to award the vast majority of the work to one prime contractor, competitively selected in 1996. GDLS operating through its division GDAMS 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 is currently provided by a competitively awarded firm-fixed price, level of effort contract and will be recompleted during FY03. The Life Cycle Support Contract is scheduled for award during FY06 for a portion of the initial operations and maintenance support for the fielded AAAVs.</p> <p>(U) E. MAJOR PERFORMERS: FY 02-07 - 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.</p>		

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis								DATE: FEBRUARY 2003				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME				
RDT&E, N/BA-4 Advanced Component Development and Prototypes			0603611M Marine Corps Assault Vehicles					B0020 Advanced Amphibious Assault Vehicle (AAV)				
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PDRR Contract	CPAF	GDLS - PDRR Award	399.703							Cont	Cont	400.000
SDD Contract	CPAF	GDLS - SDD Award	258.012	243.424	1/	208.150	1/	188.773	1/	Cont	Cont	724.000
Subtotal Program Dev Spt			657.715	243.424		208.150		188.773		Cont	Cont	
Remarks: 1/ The SDD contract was definitized in July 2001. The SDD contract is for the entire SDD effort and is incrementally funded. Target value does not include one year extension for which a proposal has been requested.												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Program Support		EG&G, Manassas, VA	18.357	4.471	2/	1.490	2/	1.487	2/	Cont	Cont	24.000
Program Support		Various Government Contracts	12.621	2.701	3/	2.722	3/	2.547	3/	Cont	Cont	
Training devices/simulators		Various Government Contracts	0.800	8.361	3/	8.385	3/	11.479	3/	Cont	Cont	
Subtotal Program Support			31.778	15.533		12.597		15.513		Cont	Cont	
Remarks: 2/ EG&G contract (FFP with options) was awarded August 1998 for contract performance thru 2003. 3/ Various contract award dates.												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Testing		Various Locations	15.431	9.453	3/	15.018	3/	28.200	3/	Cont	Cont	
Subtotal T&E			15.431	9.453		15.018		28.200		Cont	Cont	
Remarks: 3/ Various contract award dates.												

UNCLASSIFIED

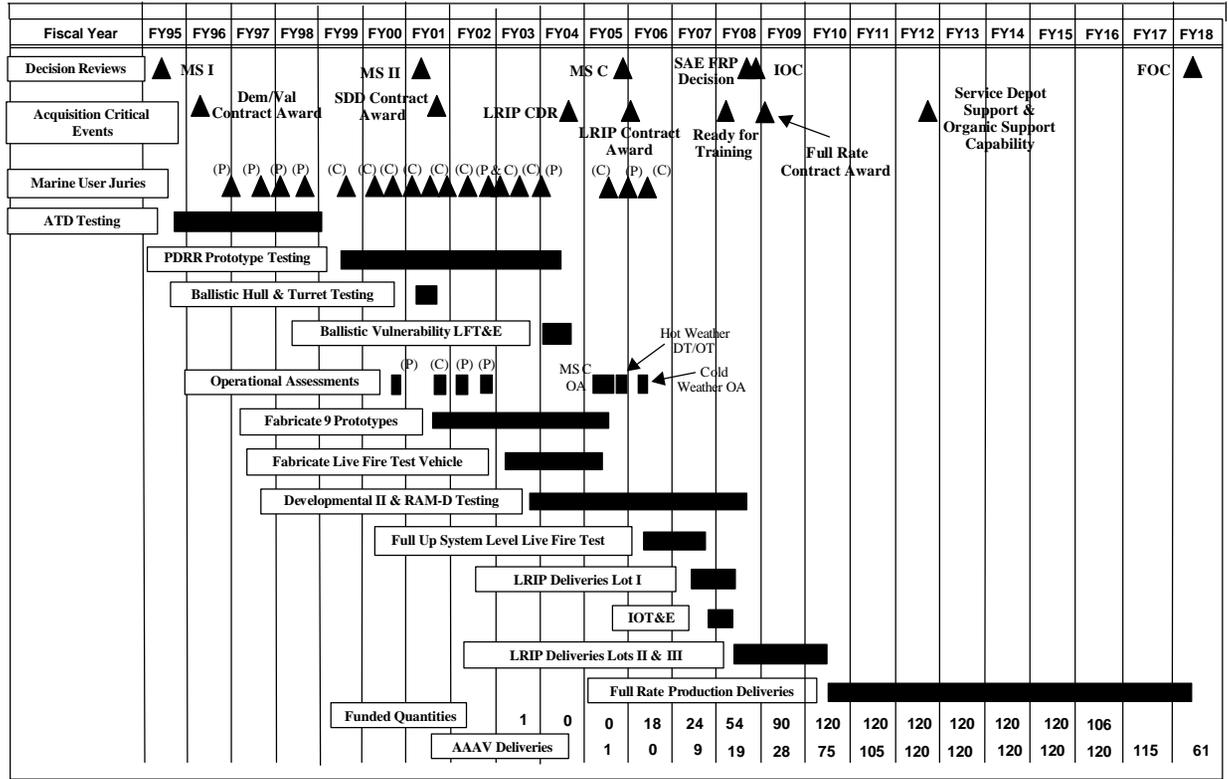
CLASSIFICATION:

Exhibit R-3 Cost Analysis								DATE: FEBRUARY 2003				
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 Advanced Amphibious Assault Vehicle (AAV)				
Cost Categories (Tailor to WBS, or System/Iter Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
In-house technical support		Various Government Labs	73.905	0.599	3/	3.684	3/	4.087	3/	Cont	Cont	
Mgmt & Prof Support		MITRE CORP, McClean, VA	7.739	1.246	1Q	1.246	1Q	1.246	1Q	Cont	Cont	
Subtotal Management			81.644	1.845		4.930		5.333		Cont	Cont	
Remarks: 3/ Various contract award dates.												
Total Cost			786.568	270.255		240.695		237.819		Cont	Cont	

UNCLASSIFIED

Exhibit R-4/a Schedule Profile/Detail DATE: **FEBRUARY 2003**

APPROPRIATION/BUDGET ACTIVITY **PROGRAM ELEMENT NUMBER AND NAME** **PROJECT NUMBER AND NAME**
RDT&E, N /BA-4 Advanced Component Development and Prototypes **0603611M Marine Corps Assault Vehicles** **B0020 Advanced Amphibious Assault Vehicle (AAAV)**



<u>Program Funding Summary</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>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) RDT&E,N	252.634	270.255	240.695	237.819	184.358	164.024	72.013	14.612	Cont	Cont
(U) PANMC, BLI #147500, AAAV	-	-	-	2.536	5.824	9.470	28.275	14.419	399.771	460.295
(U) PMC BA2, BLI #202200, AAAV	-	16.490	97.915	67.896	240.320	267.451	545.568	829.742	6,191.165	8,256.547
(U) PMC BA7, BLI #700000, AAAV	-	0.501	-	-	9.076	9.568	19.421	29.483	247.599	315.648
(U) PMC, AAAV TOTALS	-	16.991	97.915	67.896	249.396	277.019	564.989	859.225	6,438.764	8,572.195
(U) MILCON P-038	-	28.344	-	-	-	-	-	-	-	28.344
(U) MILCON P-042	-	-	-	-	-	10.647	-	-	-	10.647
(U) MILCON P-041	-	-	-	-	-	3.177	-	-	-	3.177
(U) MILCON P-1010	-	-	-	-	-	-	-	-	7.048	7.048
(U) REMAINING AAAV MILCON	-	-	-	-	-	-	-	-	31.106	31.106
(U) MILCON, AAAV TOTALS	-	28.344	0.000	0.000	0.000	13.824	0.000	0.000	38.154	80.322

R-1 SHOPPING LIST - Item No. 61

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4/4a Schedule Profile/Detail						DATE: FEBRUARY 2003			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N /BA-4 Advanced Component Development and Prototypes		0603611M Marine Corps Assault Vehicles			B0020 Advanced Amphibious Assault Vehicle (AAAV)				
SCHEDULE DETAIL		FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
MS C					4Q				
SAE FRP Decision								3Q	
IOC								4Q	
PDRR Prototype Testing		1-4Q	1-4Q	1-2Q					
Ballistic Vulnerability LFT&E				1-3Q					
Operational Assessments		1Q,4Q			2-4Q	2Q			
Fabrication of 9 Prototypes, Refurb 3 PDRR Prototypes		1-4Q	1-4Q	1-4Q	1-3Q				
Fabricate Live Fire Test Vehicle			2-4Q	1-4Q	1-2Q				
Developmental II & RAM-D Testing			4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-3Q	
LRIP CDR				3Q					
LRIP Contract Award						1Q			
Full Up System Level Live Fire Test						2-4Q	1-3Q		
LRIP Deliveries Lot I							3-4Q	1-2Q	
IOT&E							4Q	1-2Q	
Ready for Training								1Q	
LRIP Deliveries Lots II & III								2-4Q	1-4Q
Full Rate Contract Award									1Q