

CLASSIFICATION:

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A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Multi-mission Maritime Aircraft (MMA) program provides the replacement system(s) for the aging P-3 aircraft. The MMA program is intended to meet the Broad Area Maritime and Littoral Armed Intelligence, Surveillance and Reconnaissance Mission Need Statement (MNS) which was validated by the Joint Requirements Oversight Council (JROC) on 29 February 2000. The MMA program received Milestone 0 approval to proceed into Concept Exploration (CE) on 22 March 2000. Concept exploration activities began in June, 2000 under Program Element 0702207N / Project Unit W2737. Approval to enter Component Advanced Development (CAD) was attained from the Overarching Integrated Product Team on 18 January 2002 and the Milestone Decision Authority (USD(AT&L)) approved the program Acquisition Strategy on 8 February 2002.

The primary objectives of CAD are to: refine system requirements, define system architectures for the alternative concepts, identify and mitigate concept risks, reconcile concept life cycle cost estimates and prepare for Milestone B. MMA plans to enter System Development and Demonstration (SDD) in the 3rd quarter of FY04 after completing the Milestone B Defense Acquisition Board. SDD effort will include: design, development and testing of Engineering Development Model aircraft, development and use of test articles (e.g., static, fatigue, Live Fire Test and Evaluation, wind tunnel test articles), the development of the aircraft avionics and mission systems, and development of the Systems Integration Lab.

The MMA Operational Requirements Document (ORD)/ Capabilities Development Document (CDD) was validated and approved by JROC on 08 December 2003.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0605500N MULTI-MISSION MARITIME AIRCRAFT			PROJECT NUMBER AND NAME H2696 MULTI-MISSION MARITIME AIRCRAFT			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost		65.615	71.413	496.029	963.041	932.838	603.897	492.042
RDT&E Articles Qty					1	1	1	

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The primary objectives of CAD are to: refine system requirements, define system architectures for the alternative concepts, identify and mitigate concept risks, reconcile concept life cycle cost estimates and prepare for Milestone B. MMA plans to enter System Development and Demonstration (SDD) in the 3rd quarter of FY04 after completing the Milestone B Defense Acquisition Board. SDD effort will include: design, development and testing of Engineering Development Model aircraft, development and use of test articles (e.g., static, fatigue, Live Fire Test and Evaluation, wind tunnel test articles), the development of the aircraft avionics and mission systems, and development of the Systems Integration Lab.

The MMA Operational Requirements Document (ORD)/ Capabilities Development Document (CDD) was validated and approved by JROC on 08 December 2003. The RDT&E Articles listed are Engineering Development Model (EDM) aircraft.

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(U) B. Accomplishments/Planned Program				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		43.067	6.000	0.000
RDT&E Articles Quantity				
<p>Component Advanced Development (CAD) contracts initiated in FY02 to evaluate MMA system alternative concepts. Scope of effort includes: Designed MMA alternative concept's weapon system architectures. Technical, logistic, cost, and risk analysis of each proposed MMA alternative concept. Applied Modeling & Simulation tools to validate proposed risk mitigations for each MMA alternative concept. Evaluated system requirements through cost/performance trade-offs analysis. Evaluate an unmanned aerial vehicle (UAV) in the maritime role (technical and cost analysis) and refine UAV system integration requirements and evaluate concept of operations. Provided engineering, management, and technical support for the MS B acquisition documentation, the AoA and the industry Component Advanced Development (CAD) studies. CAD contracts continue through FY03 with a planned completion in FY04.</p>				
Accomplishments/Effort/Subtotal Cost		0.000	43.913	475.334
RDT&E Articles Quantity				
<p>Initiate System Development and Demonstration (SDD) phase starts in FY04 at the completion of the CAD contracts. Scope of effort includes: Design, develop, build, and test MMA aircraft, avionics, mission systems, Systems Integration Lab(s), wind tunnel test models, and other test articles, and integration of UAV Tactical Control System (TCS) into the Tactical Support Center (TSC). Conduct System Functional Review and prepare for Preliminary Design Review (PDR). Modeling & Simulation tools will be developed to assess proposed risk mitigations and to support Development Test and Evaluation. Provide engineering and technical development to the SDD efforts. The SDD phase work effort will continue through FY05 and beyond.</p>				
Accomplishments/Effort/Subtotal Cost		22.548	21.500	20.695
RDT&E Articles Quantity				
<p>Engineering and Technical Development for the CAD and SDD contracts. Effort will include the analysis of contracted deliverables, assessment of contractors readiness to proceed in design/development; evaluate contract cost, schedule, test preparations and conduct of testing; risk assessment/mitigation; program control; performance status; develop modifications to the TSC; and plan and prepare for next Milestone/Decision Review and associated acquisition phase. Work effort initiated in FY02 and will continue until the end of the SDD contract.</p>				

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0605500N MULTI-MISSION MARITIME AIRCRAFT	PROJECT NUMBER AND NAME H2696 MULTI-MISSION MARITIME AIRCRAFT

(U) C. PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
(U) Funding:			
Previous President's Budget:	68.123	76.243	343.800
Current BES/President's Budget	65.615	71.413	496.029
Total Adjustments	-2.508	-4.830	152.229
Summary of Adjustments			
Congressional program reductions			
Congressional undistributed reductions		-0.830	
Congressional rescissions			
SBIR/STTR Transfer	-1.780		
Economic Assumptions			-1.758
Reprogrammings	-0.728		
Reprioritization of requirements		-4.000	153.987
Other adjustments			
Congressional increases			
Subtotal	-2.508	-4.830	152.229

(U) Schedule:

CNO directed MMA to delay the release of the SDD RFP by two months to ensure alignment of MMA requirements with the CNO ASW Task Force. As a result of this delay, MS B has changed from 2Q/04 to the 3Q/04.

The following schedule refinements are based on results from CAD and adjustments made to budget profile. Changes include: Preliminary Design Review changed from 1Q/05 to 2Q/06; Critical Design Review changed from 4Q/05 to 3Q/07; Milestone C from 2Q/08 to 4Q/08; and Low Rate Initial Production from 2Q/08 to 1Q/09. Proposal concept selected at SDD could result in additional changes to the schedule.

System Development and Demonstration (SDD) is comprised of two work efforts: Systems Integration and Systems Demonstration. Design Readiness Review (DRR) is a new DOD 5000 requirement for granting approval to enter System Demonstration.

(U) Technical:

Not Applicable

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Exhibit R-2a, RDTE Project Justification
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APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0605500N MULTI-MISSION MARITIME AIRCRAFT			PROJECT NUMBER AND NAME H2696 MULTI-MISSION MARITIME AIRCRAFT				

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost
APN BLI 019300 Inventory Sustainment						38.882	1,416.852	21,799.546	23,255.280
APN BLI 060510 Initial Spares - MMA							61.413	1,139.221	1,200.634

(U) E. ACQUISITION STRATEGY:

The Multi-Mission Maritime Aircraft (MMA) Milestone 0 was approved 22 March 2000 and the resulting Acquisition Decision Memorandum directed MMA to begin the CE phase consisting of an AoA and industry concept studies. These activities began 3Q/01 and were funded under Program Element 0702207N / Project Unit W2737. Approval to enter Component Advanced Development (CAD) was attained from the Overarching Integrated Product Team on 18 Jan 2002 and the Milestone Decision Authority (USD(AT&L)) approved the program Aquisition Strategy on 8 Feb 2002. The CAD was a competitive award to multiple contractors to define alternative MMA concept system architectures and evaluate associated risks and proposed mitigations. Selection of MMA concept and approval to enter System Development and Demonstration (SDD) phase will occur at a MS B decision review in FY2004. The schedule after Milestone B is dependent upon alternative concept selected at the end of CAD. The MMA program was initiated in response to the JROC validated MNS, "Broad Area Maritime and Littoral Armed Intelligence, Surveillance and Reconnaissance". MMA IOC is targeted for FY 2012.

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0605500N MULTI-MISSION MARITIME AIRCRAFT			H2696 MULTI-MISSION MARITIME AIRCRAFT						
Cost Categories	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
Primary Hardware Development	C/CPAF	TBD				43.913	06/04	475.334	01/05	3,621.549	4,140.796	4,140.796
Primary Hardware Development	C/CPAF	SPAWAR - TSC	0.000					2.400	2/05	26.800	29.200	29.200
Systems Engineering	C/FFP	Various	21.471	-		0.000					21.471	21.471
	C/FFP	Boeing		21.508	02/03	3.000	02/04				24.508	24.508
	C/FFP	Lockheed Martin		21.559	02/03	3.000	02/04				24.559	24.559
											0.000	
											0.000	
Subtotal Product Development			21.471	43.067		49.913		477.734		3,648.349	4,240.534	
Technical Development	WX	NAWCAD / NAWCWD		14.724	01/03	16.498	01/04	12.000	01/05	85.478	128.700	
Studies & Analysis	SS/FFP	CNA, VA	0.325								0.325	0.325
Studies & Analysis	C/FFP	Johns Hopkins Univ/Lincoln L	2.240	2.300	01/03	0.303	01/04				4.843	4.843
Studies & Analysis	C/FFP	TBD						2.224	01/05		2.224	2.224
Integrated Logistics Support	WX	NAWCAD, Pax River, MD	0.600	0.600	11/02	0.600	12/03	0.600	11/04	4.200	6.600	
Configuration Management	TBD	TBD								5.000	5.000	
Technical Data	TBD	TBD								8.000	8.000	
Subtotal Support			3.165	17.624		17.401		14.824		102.678	155.692	

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0605500N MULTI-MISSION MARITIME AIRCRAFT			PROJECT NUMBER AND NAME H2696 MULTI-MISSION MARITIME AIRCRAFT						
Cost Categories	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
Developmental Test & Evaluation	TBD	TBD								125.700	125.700	
Operational Test & Evaluation	TBD	TBD								94.900	94.900	
Live Fire Test & Evaluation	TBD	TBD								40.800	40.800	
Test Assets	TBD	TBD								169.700	169.700	
											0.000	
											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		431.100	431.100	
Remarks:												
Contractor Engineering Support	C/FFP	RBC Inc., VA	1.910	1.671	01/03	2.300	01/04	2.300	01/05	16.100	24.281	24.281
Government Engineering Support	WX	NAWCAD, Pax River, MD	8.880								8.880	
Program Management Support	WX	NAWCAD, Pax River, MD	1.400	3.093	01/03	1.629	01/04	0.991	01/05	13.040	20.153	
Travel	WX	NAWCAD, Pax River, MD	0.150	0.160	11/02	0.170	11/03	0.180	11/04	1.290	1.950	
											0.000	
											0.000	
Subtotal Management			12.340	4.924		4.099		3.471		30.430	55.264	
Total Cost			36.976	65.615		71.413		496.029		4,212.557	4,882.590	

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R4, Schedule Profile																									DATE:							
APPROPRIATION/BUDGET ACTIVITY										PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME												
RDT&E, N / BA-5										0605500N MULTI-MISSION MARITIME AIRCRAFT										H2696 MULTI-MISSION MARITIME AIRCRAFT												
Fiscal Year					2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones											MS B △										DRR △					MS C △						
Acquisition Phases					Component Advanced Development								System Development and Demonstration																			
MMA System Dates are tentative; dependent upon concept selected																	PDR △				CDR △								LRIP			
Contract Awards SDD											△																					
Test & Evaluation Milestones																																
Development Test Dates are tentative																									Combined DT/OT							
Production Milestones																																
Deliveries																																

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Exhibit R-4a, Schedule Detail
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