

**CLASSIFICATION:**

**UNCLASSIFIED**

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**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

The V-22 Osprey is an ACAT-ID Joint Program led by the Department of the Navy for the purpose of developing, testing, evaluating, procuring and fielding a tilt rotor, vertical takeoff and landing aircraft for Joint Service application. The V-22 program is designed to provide an aircraft to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and the special operations needs of the Air Force and the United States Special Operations Command (USSOCOM). The V-22 will replace the CH-46E and CH53A/D in the Marine Corps with the MV-22; supplement the H-60 in the Navy with the HV-22; and replace the MH-53J and MH-53M as well as augment the C-130 in the Air Force and USSOCOM with the CV-22. The V-22 will be capable of flying over 2100 nautical miles with a single refueling, giving the services the advantage of a Vertical/Short Take-off, and Landing (VSTOL) aircraft that can rapidly self-deploy to any location in the world. This program is funded under Engineering Manufacturing and Development (EMD) because it encompasses engineering and manufacturing development of new end-items prior to a production approval decision.

\*\$34 million transferred to SOCOM CV-22 program (RDT&E, DW, PE 1160404BB) to complete modification of additional test asset (ATA) which began in FY 2003.

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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2003</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604260N, V-22A			PROJECT NUMBER AND NAME H1425, V-22			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	415.819	410.780	441.142	306.982	115.378	44.558		
RDT&E Articles Qty								

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604262N, V-22A	PROJECT NUMBER AND NAME H-1425, V-22																																															
<b>B. Accomplishments/Planned Program</b>																																																	
<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">FY 02</th> <th style="width: 15%;">FY 03</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> </tr> <tr> <td>Contractor Activities</td> <td style="text-align: right;">171.724</td> <td style="text-align: right;">214.871</td> <td style="text-align: right;">245.265</td> <td style="text-align: right;">128.140</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Continue MV-22 development efforts by Bell-Boeing. Rolls-Royce continues to provide engine support and repair of repairables for MV-22 flight testing. Complete MV-22 software development efforts. Continue development in support of "Return to Flight" and MV-22 Block up-upgrades required to return the MV-22 to fleet operations in FY 04. Continue development of maintenance training equipment. Continue Weapons Repairable Assembly (WRA) and Test Program Set (TPS) development. Continue logistics, flight test, and flight test support, address correction of deficiencies, and provide funding for the V-22 Way Forward. Continue contracted development efforts on aircraft #8 and #10. Continue development of the Ground Collision Avoidance System (GCAS).</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">FY 02</th> <th style="width: 15%;">FY 03</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> </tr> <tr> <td>Field Activity Effort</td> <td style="text-align: right;">121.366</td> <td style="text-align: right;">76.309</td> <td style="text-align: right;">51.877</td> <td style="text-align: right;">5.842</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Continue in-house field activity support of Integrated Test Team (ITT), Integrated Product Teams (IPT), logistics and training activities, the manned flight simulator and numerous other efforts at over 12 activities. Continue development in support of "Return to Flight" and MV-22 Block up-upgrades required to return the MV-22 to fleet operations in FY 04. Continue field development efforts on aircraft #8, #10, and three LRIP aircraft. Provide R&amp;D support in the areas of Reliability and Maintainability (R&amp;M) data analysis, loads and dynamics, electromagnetic environmental effects, V-22 flight controls, survivability, subsystems, shipboard compatibility, propulsion, V-22 avionics, facilities, structures, communications, Small Business Innovative Research, etc. Continue logistics, flight test, and flight test support, and addressed correction of deficiencies.</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">FY 02</th> <th style="width: 15%;">FY 03</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> </tr> <tr> <td>CV-22 Block-0 Development</td> <td style="text-align: right;">122.729</td> <td style="text-align: right;">119.600</td> <td style="text-align: right;">144.000*</td> <td style="text-align: right;">173.000</td> </tr> <tr> <td>RDT&amp;E Articles Quantity</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table> <div style="border: 1px solid black; padding: 5px;"> <p>Continue CV-22 Block-0 EMD development. Provide flight test support for CV-22 aircraft #7 and #9. Provide engineering and maintenance support for CV-22 flight testing. Fund fuel costs for test aircraft and/or engines. Provide R&amp;D support in the areas of R&amp;M data analysis, loads and dynamics, electromagnetic environmental effects, CV-22 flight controls, survivability, subsystems, shipboard compatibility, propulsion, CV-22 avionics, facilities, computer support, structures, communications, Small Business Innovative Research, etc. Continue logistics, flight test, and flight test support, and address correction of deficiencies. Support CV-22 Additional Test Asset (ATA) flight test infrastructure and contractor maintenance/logistics support for ATA.</p> </div>						FY 02	FY 03	FY 04	FY 05	Contractor Activities	171.724	214.871	245.265	128.140	RDT&E Articles Quantity	0	0	0	0		FY 02	FY 03	FY 04	FY 05	Field Activity Effort	121.366	76.309	51.877	5.842	RDT&E Articles Quantity	0	0	0	0		FY 02	FY 03	FY 04	FY 05	CV-22 Block-0 Development	122.729	119.600	144.000*	173.000	RDT&E Articles Quantity	0	0	0	0
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EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2003</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604262N, V-22A	PROJECT NUMBER AND NAME H1425, V-22		

  

**C. PROGRAM CHANGE SUMMARY:**

	FY 2002	FY 2003	FY 2004	FY 2005
Funding:				
Previous President's Budget:	442.787	420.109	364.303	225.321
Current BES/President's Budget	415.819	410.780	441.142	306.982
Total Adjustments	-26.968	-9.329	76.839	81.661
Summary of Adjustments				
Congressional program reductions	0.000	0.000	0.000	0.000
Congressional undistributed reductions	-0.018	-2.592	0.000	0.000
Congressional rescissions	-0.945	0.000	0.000	0.000
SBIR/STTR Transfer	-8.543	0.000	0.000	0.000
Economic Assumptions	-1.118	-6.737	-10.252	-6.586
Reprogrammings	-16.344	0.000	0.000	0.000
Sponsor/FMB/NAVAIR adjustments	0.000	0.000	87.091	88.247
Congressional increases	0.000	0.000	0.000	0.000
Subtotal	-26.968	-9.329	76.839	81.661

  

Schedule:

Schedule updated to reflect revised program baseline.

  
  
  

Technical:

Not Applicable.

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**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost
16400 / V-22										
V-22 APN-1	804.703	1,052.799	872.167	844.283	1,480.875	2,292.040	2,334.362	2,375.983	14,715.307	26,772.519
V-22 APN-6 Spares	84.485	14.726	79.477	189.083	225.062	35.885	37.718	40.971	288.209	1,228.098
59000 / V-22										
V-22 APN-5	17.076	4.847	4.814	34.458	19.186	23.941	24.38	24.817	361.000	514.519
Related RDT&E:										
0401318F CV-22	188.600	11.449	65.703	16.482	27.602	9.615	7.135	7.526	TBD	TBD
1160404BB CV-22	90.844	59.820	36.456	41.420	22.893	0.000	0.000	0.000	TBD	TBD

  

**E. ACQUISITION STRATEGY: \***

The MV-22 is currently in EMD under contract N00019-93-C-0006 awarded to Bell-Boeing on 22 Oct 92, and definitized in May 94. As a result of mishaps during and subsequent to MV-22 OPEVAL (Apr and Dec 00), the program was restructured employing a phased approach to return to flight and tactical introduction. The Contractor and Government defined deficient areas within the program/aircraft requiring correction prior to return to flight. A Block Upgrade approach has been planned, with required efforts being identified in Block "A", "B", and "C". Block "A" includes those efforts necessary to return the V-22 to safe and operational fleet operations. Block "B" includes those efforts necessary to improve the effectiveness and suitability of the aircraft. Block "C" includes mission enhancements like forward cabin redesign and a full IETMS upgrade. Non-recurring development activities are to be initiated and completed for all efforts identified to be in Block "A", "B", and "C". The Contractor will develop specific Statements of Work and Preliminary Specification Change Notices required to integrate the Block Upgrade efforts into the baseline EMD Program. A Systems Requirements Review, Initial Design Review, and Final Design Review will be held for each of the Block efforts so the design maturity can be reviewed and the Government can redirect activities as appropriate. The CV-22 EMD program is structured in Blocks to define an evolutionary approach to achieving full operational capability. Block "0" is the initial baseline CV-22 variant. Block "10" enhances mission capability with the addition of Directional Infrared Countermeasures. Additional Blocks are in planning to continue the growth process throughout the operational life of the weapon system.

  

**F. MAJOR PERFORMERS: \*\***

  
  

\* Not required for Budget Activities 1,2,3, and 6  
 \*\* Required for DON and OSD submit only.

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Exhibit R-2a, RDTEN Project Justification  
 (Exhibit R-2a, page 5 of 9)

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## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2003				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604262N, V-22A			H1425, V-22						
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
Prime Hdw - Airframe	SS CPAF	BELL-BOEING, PaxRiver, M	3,788.307	326.201	01/03	385.776	11/03	277.469	11/04	105.167	4,882.920	4,882.920
Award Fee	SS/CPAF	BELL-BOEING, PaxRiver, M	179.057	4.281	01/03	3.993	11/03	2.531	11/04	1.000	190.862	190.862
Prime Hdw - Engine	C/CPIF	ALLISON, INDIANAPOLIS, IN	184.869	1.923	11/02	0.100	11/03	0.000	11/04	0.000	186.892	186.892
Field Activity	Various	Various	2,894.629	7.864	12/02	16.932	11/03	1.868	11/04	23.153	2,944.446	
Subtotal Product Development			7,046.862	340.269		406.801		281.868		129.320	8,205.120	
Remarks:												
ASN or HQMC directed studies	Various	Various	3.467								3.467	
Logistics, Engineering, & Test Spt	WX	NAWCAD PAX RIVER, MD	135.005	59.306	01/03	28.179	11/03	21.433	11/04	23.398	267.321	
Logistics, Engineering, & Test Spt	MIPR	EDWARDS AFB, CA	13.121	4.934	01/03	0.000	11/03	0.000	11/04	0.000	18.055	
Logistics and Support Equipment	WX	NAWCAD LAKEHURST, NJ	15.484	6.271	01/03	6.162	11/03	3.681	11/04	7.218	38.816	
Subtotal Support			167.077	70.511		34.341		25.114		30.616	327.659	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)									DATE: <b>February 2003</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>			PROGRAM ELEMENT 0604262N, V-22A			PROJECT NUMBER AND NAME H1425, V-22						
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
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			7,213.939	410.780		441.142		306.982		159.936	8,532.779	
Remarks:												

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Exhibit R-3, Project Cost Analysis  
(Exhibit R-3, page 7 of 9)

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\* Not required for Budget Activities 1, 2, 3, and 6

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**Exhibit R-4a, Schedule Detail**  
(Exhibit R-4a, page 9 of 9)