

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2005
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APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160421BB Special Operations CV-22 Development
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COST (Dollars in Millions)	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	Cost to Complete	Total Cost
PE1160421BB		62.806	29.954	14.234	32.702	28.937	38.885	59.585	Cont.	Cont.
PE1160404BB	71.305									
SF200 CV-22	71.305	62.806	29.954	14.234	32.702	28.937	38.885	59.585	Cont.	Cont.

Note: As directed by Congress, a new program element was established beginning in FY 2005 for Special Operations CV-22 Development. FY2005-2011 resources were moved from PE 1160404BB.

A. Mission Description and Budget Item Justification: The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical lift, multi-mission aircraft. The CV-22 will provide critical capability to vertically insert, extract, and resupply special operation forces deep into denied or sensitive territory within a single period of darkness. This is a capability not currently provided by existing aircraft. The CV-22 acquisition program delayed incorporation of some operational capabilities until the completion of a Block 10 (formerly Pre-Planned Product Improvement) CV-22 program. This strategy was based on a developmental funding cap agreed to by the Department of the Navy and the USSOCOM Acquisition Executive and concerns over the technical maturity of parallel acquisition programs. CV-22 production began in FY04.

Block 10 funding is required for integrating and testing the Directional Infrared Countermeasures (DIRCM), a system to provide protection against infrared guided missiles; design, integration and validation of the Troop Commander Situational Awareness station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocation of the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; addition of a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration/exfiltration/resupply missions; and incorporation of a dual access feature to the Digital Map System to allow both the pilot and copilot to independently access and control the digital map display from the mission computer. This program includes modification of an existing undelivered MV-22 to a CV-22 Additional Test Aircraft (ATA) configuration, thus providing a third flight test asset.

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PE 1160421BB Special Operations CV-22 Development

Block 20 funding is required to design, integrate, test, and validate enhancements required to meet SOF unique mission requirements and correction of deficiencies identified in previous testing. This block will provide more robust performance of the CV platform in navigation, maneuverability and mission deployment. Initial risk reduction and trade studies will be pursued prior to starting System Development and Demonstration.

Block 30 funding is required to design, integrate, test, and validate enhancements required to meet SOF unique mission requirements to maintain performance against the evolving threat environment. This block will provide improve survivability and performance against potential threats through reduction in electronic signature emissions and improved countermeasures. Initial risk reduction and trade studies will be pursued prior to starting System Development and Demonstration.

B. Program Change Summary:

	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>
Previous President's Budget	78.610			
Current President's Budget	71.305	62.806	29.954	14.234
Total Adjustments	-7.305	62.806	29.954	14.234
Congressional Program Reductions		-1.347		
Congressional Rescissions		-9.390		
Congressional Increases				
Congressional Transfer		75.131	28.811	
Reprogrammings	-5.698	-0.052	1.143	14.234
SBIR Transfer	-1.607	-1.536		

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<p>Funding:</p> <p>FY04</p> <ul style="list-style-type: none"> - Decrease of (-\$5.698M) to rephase Block 10 development program. <p>FY05</p> <ul style="list-style-type: none"> - Decrease reflects sectionals 8095, 8122. and 8135 (-\$1.347M), Congressional rescission (-\$9.390) and (-\$.052M) that was reprogrammed to other programs. <p>FY06</p> <ul style="list-style-type: none"> - Increase (\$1.143M) for addition of Block 20 and Block 30. <p>FY07</p> <ul style="list-style-type: none"> - Increase (\$14.234M) for addition of Block 20 and Block 30. <p>Schedule: Addition of Block 20 and Block 30.</p> <p>Technical: Addition of Block 20 and Block 30.</p>	

Exhibit R-2a, RDT&E Project Justification		Date: FEBRUARY 2005
Appropriation/Budget Activity RDT&E BA # 7	CV-22/Project SF200	

Cost (\$ in millions)	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
CV-22	See Note	62.806	29.954	14.234	32.702	28.937	38.885	59.585
RDT&E Articles Quantity								

Note: As directed by Congress, a new program element was established beginning in FY 2005 for Special Operations CV-22 Development. FY2005-2011 resources were moved from PE 1160404BB.

A. Mission Description and Budget Item Justification: This program provides capabilities necessary to meet Special Operations Forces (SOF) operational requirements. The CV-22 acquisition program delayed the incorporation of some operational capabilities until the completion of a Block 10 (formerly Pre-Planned Product Improvement) CV-22 program. This strategy was based on a developmental funding cap agreed to by the Department of the Navy and the USSOCOM Acquisition Executive and concerns over the technical maturity of parallel acquisition programs. Block 10 includes integrating and testing the Directional Infrared Countermeasures, a system to provide protection against infrared guided missiles; design and integration of the Troop Commander Situational Awareness station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocation of the Automatic Link Establishment-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; addition of a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration/exfiltration/resupply missions; and the incorporation of a dual access feature to the Digital Map System to allow both the pilot and copilot to independently access and control the digital map display from the mission computer. This program includes modification of an existing undelivered MV-22 to a CV-22 Additional Test Aircraft configuration. Block 20 will provide more robust performance of the CV-22 platform in navigation, maneuverability and mission deployment as well as correction of deficiencies identified in previous testing. Future Block upgrade programs (Block 30 and beyond) to design, integrate, test, and validate enhancements are required to meet SOF unique mission requirements and maintain performance against the threat environment. Initial risk reduction and trade studies will be pursued prior to starting System Development and Demonstration for these efforts.

Exhibit R-2a, RDT&E Project Justification		Date: FEBRUARY 2005
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B. Accomplishments/Planned Program				
	FY04	FY05	FY06	FY07
Dev/Integration/Test of Block 10 Program	29.108	54.690	23.188	
ATA Modification	37.148			
RDT&E Articles Quantity				
FY04 Continued development and integration of Block 10 capabilities, to include the start of Block 10 flight testing; continued and completed ATA modification efforts. FY05 Continue development/integration/testing of Block 10 capabilities. FY06 Continue development/integration/testing of Block 10 capabilities.				
	FY04	FY05	FY06	FY07
Risk Reduction/Dev/Integration/Test of Block 20 Program			1.143	11.314
RDT&E Articles Quantity				
FY06 Risk reduction, trade studies, system requirements definition for Block 20 capabilities. FY07 Start design and development for Block 20 System Development and Demonstration phase.				
	FY04	FY05	FY06	FY07
Program Office Support	0.270	0.816	.200	.210
RDT&E Articles Quantity				
FY04 Continued program office support for Block 10 program. FY05 Continue program office support for Block 10 program. FY06 Complete program office support for Block 10 program and begin program office support for Block 20 program. FY07 Continue program office support for Block 20 program.				

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	FY04	FY05	FY06	FY07
Engineering and Logistics Support	4.779	7.300	5.423	2.710
RDT&E Articles Quantity				

FY04 Continued engineering and logistics support for Block 10 program.
 FY05 Continue engineering and logistics support for Block 10 program.
 FY06 Complete engineering and logistics support for Block 10 program and begin engineering and logistics support for Block 20 program.
 FY07 Continue engineering and logistics support for Block 20 program.

C. Other Program Funding Summary:

	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>To Complete</u>	<u>Total Cost</u>
Proc, CV-22 SOF Osprey	81.870	125.494	117.923	171.931	235.508	184.839	183.392	167.646	Cont.	Cont.

D. Acquisition Strategy.

The CV-22 program is managed by the Navy V-22 Joint Program Office (NAVAIR PMA-275). This ensures that the CV-22 changes are incorporated into the ongoing V-22 production line with minimum impact. Funding for the baseline CV-22 Engineering Manufacturing and Development, known as Block 0, is embedded in the Navy budget. Block 10 RDT&E funding is sent from USSOCOM to PMA-275 to be placed on contract with the V-22 prime contractor. Block 10 capability is required for full compliance with the Joint Operational Requirements Document. Future Block upgrades are planned to follow the same acquisition strategy, with the PMA-275 ensuring the integration of the SOF unique systems with the ongoing basic vehicle improvements supporting both the CV-22 and the Marine Corps MV-22.

Exhibit R-3 COST ANALYSIS					DATE: FEBRUARY 2005						
APPROPRIATION / BUDGET ACTIVITY				Special Operations CV-22 Development/PE1160421BB							
RDT&E DEFENSE-WIDE / 7				CV-22/SF200							
Actual or Budget Value (\$ in millions)											
Cost Categories (Tailor to WBS, or System/ Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY05	Award Date FY05	Budget Cost FY06	Award Date FY06	Budget Cost FY07	Award Date FY07	To Complete	Total Program
Primary Hardware (H/W) Dev	SS/CPAF	NAVAIR/PMA-275 & Bell-Boeing, Patuxent River, MD	151.825	51.779	Feb-05	20.723	Feb-06			Cont.	Cont.
Additional Test Aircraft (ATA) Modification	SS/CPAF/IF	NAVAIR/PMA-275 & Bell-Boeing, Patuxent River, MD	62.595							0.000	62.595
Block 20 Risk Reduction and Development	TBD	TBD				1.143	Mar-06	11.314	Feb-07	Cont.	Cont.
Award/Incentive Fees											
Primary H/W Dev			7.756	2.911	Feb-05	2.465	FY06			Cont.	Cont.
ATA			6.350							0.000	6.350
Prior Year Completed Efforts	Various	Various	100.521								
Subtotal Product Dev			329.047	54.690		24.331		11.314		Cont.	Cont.
Remarks:											
Contractor Engineering Spt	WR	Various	3.963	4.089	Dec-04	1.741	Dec-05	1.080	Nov-06	Cont.	Cont.
Government Engineering Spt	WR	Various	21.290	3.627	Nov-04	3.682	Nov-05	1.780	Nov-06	Cont.	Cont.
Travel and Logistics			0.700	0.400	FY05	0.200	FY06	0.060	FY07	Cont.	Cont.
Subtotal Management			25.953	8.116		5.623		2.920		Cont.	Cont.
Remarks:											
Total Cost			355.000	62.806		29.954		14.234		Cont.	Cont.
Remarks:											

