

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

05 - System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0401318F CV-22

PROJECT

4103

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4103 CV-22	145,648	11,201	65,703	16,482	27,602	9,615	7,135	7,526	0	TBD
Quantity of RDT&E Articles	2	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

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 insert, extract, and resupply special operation forces into denied or sensitive territory, not currently provided by existing aircraft.

The CV-22 configuration, baselined on the V-22 aircraft (MV-22 configuration), adds terrain following radar, additional fuel tanks, additional radios, flare/chaff dispensers, a RF warning receiver and jammer, and infrared countermeasures (CV-22 Block 10 configuration). CV-22 production buys will begin in FY04.

This RDT&E funding is required to continue the development of two Production Representative Test Vehicles (PRTV) and the design, integration, testing and certification of CV-22-required Global Air Navigation System/Global Air Traffic Management (GANS/GATM) components for compliance with the GANS/GATM Capstone Requirements Document. The funding is also required to integrate the Navy and Air Force maintenance information systems used on the V-22.

(U) **FY 2002 (\$ in Thousands)**

(U) \$0	Accomplishment/Planned Program
(U) \$770	Engineering, Development and Non-Recurring Engineering and System Integration of GANS/GATM equipment to ensure worldwide airspace access for the CV-22
(U) \$3,784	Engineering and design efforts to integrate Traffic Collision Avoidance System (TCAS) into the CV-22
(U) \$141,094	Develop and fabricate two CV-22 Production Representative Test Vehicles
(U) \$145,648	Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0	Accomplishment/Planned Program
(U) \$3,000	Navy/Air Force maintenance information system integration
(U) \$8,201	Continuation of the engineering and design efforts to integrate a Traffic Collision Avoidance System (TCAS) into the CV-22
(U) \$11,201	Total

Project 4103

Page 1 of 5 Pages

Exhibit R-2 (PE 0401318F)

UNCLASSIFIED

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PROJECT

05 - System Development and Demonstration (SDD)**0401318F CV-22****4103**(U) **A. Mission Description Continued**(U) **FY 2004 (\$ in Thousands)**

(U) \$0	Accomplishment/Planned Program
(U) \$21,503	Continuation of TCAS development and GANS/GATM integration and test
(U) \$3,200	Navy/Air Force maintenance information system integration
(U) \$41,000	Complete development of two Production Representative Test Vehicles
(U) \$65,703	Total

(U) **B. Budget Activity Justification**

This program is in Budget Activity 5, Engineering and Manufacturing Development. The CV-22 Program is developing the first operational tilt-rotor aircraft for use by the Special Operations Forces.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	10,008	11,449	15,926	TBD
(U) Appropriated Value	190,008	11,449		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-1,359	-121		
b. Small Business Innovative Research	-5,396			
c. Omnibus or Other Above Threshold Reprogram	-37,200	-127		
d. Below Threshold Reprogram				
e. Rescissions	-405			
(U) Adjustments to Budget Years Since FY 2003 PBR	0	0	49,777	
(U) Current Budget Submit/FY 2004 PBR	145,648	11,201	65,703	TBD

(U) **Significant Program Changes:**

Congress added \$180M in FY02 to develop two Production Representative Test Vehicles (PRTV). USAF reprogrammed \$37.2M to the 737 Lease Program. This will make the PRTV funding profile more executable by mapping funds availability to the PRTV schedule. Another \$7.2M in FY02 funds were rescinded to support SBI and ACE. In FY04 \$41.0M will be returned to the program to complete the two PRTVs. An additional \$8.777M in FY04 funds were added for continuation of TCAS development.

Project 4103

Page 2 of 5 Pages

Exhibit R-2 (PE 0401318F)

UNCLASSIFIED

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PROJECT

05 - System Development and Demonstration (SDD)**0401318F CV-22****4103**(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) Other APPN										
(U) 3010 BP10/11/16/AP, PE 0401318F	0	100,908	240,144	345,162	299,277	290,236	521,491	527,979	2,243,844	4,569,041

(U) **E. Acquisition Strategy**

All development activities for the V-22 program have been performed by the prime contractor (a consortium of the Bell and Boeing companies) selected on a sole source basis. Subsequent to the FY03 program, the sole source consortium was utilized to conduct developmental block upgrade and remedial work.

(U) **F. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Production Representative Test Vehicle contract		*										
(U) Award GANS/GATM NRE and System Integration contract						*						
(U) Award TCAS contract (UCA)						*						
(U) TCAS PDR										X		
(U) * = completed milestone												
(U) X = planned milestone												

GANS/GATM and TCAS are being developed in two phases. The initial GANS/GATM capabilities and TCAS will be incorporated into the CV-22 Block 10 configuraton. Additional GANS/GATM capabilities will be developed for the Block 20 configuration.

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										February 2003
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT
05 - System Development and Demonstration (SDD)					0401318F CV-22					4103
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>	
(U) Commercial vendor engineering					4,554		11,201		24,703	
(U) Commercial vendor aircraft development					141,094		0		41,000	
(U) Total					145,648		11,201		65,703	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
Build two production	C,CPIF	2QFY02		182,094		141,094		41,000		182,094
representative test vehicles -										
Bell Boeing										
TCAS development and	C,CPAF	3QFY02		77,000		3,784	8,201	21,503		33,488
integration - Bell Boeing										
GANS/GATM development	C,CPAF	2QFY03		770		770				770
-Bell Boeing										
Navy/Air Force maintenance	TBD	2QFY03		7,900			3,000	3,200		6,200
information system										
integration										
Block 20 development and	TBD	TBD							Continuing	TBD
integration										
<u>Support and Management Organizations</u>										
Testing technical & logistics	C,CPFF	TBD							Continuing	TBD
support - Bell Boeing										
Management of testing OGC	PO	TBD							Continuing	TBD
Project 4103										
Page 4 of 5 Pages										
Exhibit R-3 (PE 0401318F)										

Project 4103

Page 4 of 5 Pages

Exhibit R-3 (PE 0401318F)

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE
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(U) <u>Performing Organizations Continued:</u>						
<u>Test and Evaluation Organizations</u>						
Air Force Operational Test & PO Evaluation Ctr.					Continuing	TBD
	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Subtotals</u>						
Subtotal Product Development		145,648	11,201	65,703	TBD	TBD
Subtotal Support and Management					TBD	TBD
Subtotal Test and Evaluation					TBD	TBD
Total Project		145,648	11,201	65,703	TBD	TBD

Project 4103
Page 5 of 5 Pages
Exhibit R-3 (PE 0401318F)

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