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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	543.858	522.268	577.435	0.000	577.435	659.989	641.884	538.458	488.165	Continuing	Continuing
3059: CH-53K Development	543.858	522.268	577.435	0.000	577.435	659.989	641.884	538.458	488.165	Continuing	Continuing

A. Mission Description and Budget Item Justification

The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K will provide improvements in range and payload, performance, cargo handling and turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC).

Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for SDD, to be purchased with RDT&E funds. Of the remaining 200 Production-representative and Production aircraft, the first six will be procured as Low Rate Initial Production (LRIP) Lot 1 aircraft with RDT&E and APN funds, with the four RDT&E aircraft to be used for Initial Operational Test and Evaluation (IOT&E) and the two APN aircraft establishing the IOC production base.

FY11 RDT&E efforts focus on CH-53K System Development and Demonstration (SDD) activities that includes fabrication and assembly in preparation for ground and flight test.

This program element includes \$1.950M for the Defense Acquisition Workforce Development (DAWDF) Fund in FY09.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0605212N: CH-53K			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	564.774	554.827	0.000	0.000	0.000
Current President's Budget	543.858	522.268	577.435	0.000	577.435
Total Adjustments	-20.916	-32.559	577.435	0.000	577.435
• Congressional General Reductions		-2.175			
• Congressional Directed Reductions		-30.384			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-3.900	0.000			
• SBIR/STTR Transfer	-17.016	0.000			
• Program Adjustments	0.000	0.000	577.435	0.000	577.435
Change Summary Explanation					
Technical: Not applicable.					
Schedule: Not applicable.					
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0605212N: <i>CH-53K</i>				PROJECT 3059: <i>CH-53K Development</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3059: <i>CH-53K Development</i>	543.858	522.268	577.435	0.000	577.435	659.989	641.884	538.458	488.165	Continuing	Continuing
Quantity of RDT&E Articles	2	2	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K will provide improvements in range and payload, performance, cargo handling and turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC).</p> <p>Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for SDD, to be purchased with RDT&E funds. Of the remaining 200 Production-representative and Production aircraft, the first six will be procured as Low Rate Initial Production (LRIP) Lot 1 aircraft with RDT&E and APN funds, with the four RDT&E aircraft to be used for Initial Operational Test and Evaluation (IOT&E) and the two APN aircraft establishing the IOC production base.</p> <p>FY11 RDT&E efforts focus on CH-53K System Development and Demonstration (SDD) activities that includes fabrication and assembly in preparation for ground and flight test.</p> <p>This program element includes \$1.950M for the Defense Acquisition Workforce Development (DAWDF) Fund in FY09.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total						
Air Vehicle Development	488.348	463.319	511.260	0.000	511.260						

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: Performed System Development and Demonstration (SDD) activities for the CH-53K air vehicle and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems.						
FY 2010 Plans: Perform System Development and Demonstration (SDD) activities for the CH-53K air vehicle and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems						
FY 2011 Base Plans: Perform System Development and Demonstration (SDD) activities for the CH-53K air vehicle and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems						
Integrated Logistics Support		11.495	13.444	15.090	0.000	15.090
FY 2009 Accomplishments: Performed in-house, field activity, and contractor support of Integrated Logistic support and Test & Evaluation activities, including but not limited to planning, preparations, and management of data, support equipment, Studies & Analysis, training elements of CH-53K development, and program Test & Evaluation efforts.						
FY 2010 Plans: Perform in-house, field activity and contractor support of Integrated Logistic support and Test & Evaluation activities, including but not limited to planning, preparations, and management of data, support equipment, Studies & Analysis, training elements of CH-53K development, and program Test & Evaluation efforts.						

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Perform in-house, field activity, and contractor support of Integrated Logistic support and Test & Evaluation activities, including but not limited to planning, preparations, and management of data, support equipment, Studies & Analysis, training elements of CH-53K development, and program Test & Evaluation efforts.						
Systems Engineering & Project Management FY 2009 Accomplishments: In-house, field activities, and contractors support of Integrated Product Teams (IPTs) to allow for the preparation of acquisition strategy, examination of equipment and avionics for the CH-53K, and development of acquisition documentation. Efforts include, but are not limited to, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program. FY 2010 Plans: In-house, field activities, and contractors support of Integrated Product Teams (IPTs) to allow for the preparation of acquisition strategy, examination of equipment and avionics for the CH-53K, and development of acquisition documentation. Efforts include, but are not limited to, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program. FY 2011 Base Plans: In-house, field activities, and contractors support of Integrated Product Teams (IPTs) to allow for the preparation of acquisition strategy, examination of equipment and avionics for the CH-53K, and development of acquisition documentation. Efforts include, but are not limited to, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program.		42.065	45.505	51.085	0.000	51.085

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Acquisition Workforce Fund <i>FY 2009 Accomplishments:</i> Funded DoD Acquisition Workforce Fund.						1.950	0.000	0.000	0.000	0.000	
Accomplishments/Planned Programs Subtotals						543.858	522.268	577.435	0.000	577.435	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• APN/0158: <i>CH-53K (Heavy Lift)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	34.000	14,866.010	14,900.010
D. Acquisition Strategy											
On 31 October 2005, the Defense Acquisition Board reviewed the CH-53K program for a Milestone (MS) B decision on entry to System Development and Demonstration (SDD). The Under Secretary of the Defense (Acquisition, Technology and Logistics) (USD(AT&L)) signed the Acquisition Decision Memorandum (ADM) allowing the program to proceed with SDD on 22 December 2005. The CH-53K program was initiated as an Acquisition Category (ACAT) ID program, based on total estimated costs for Research, Development, Test and Evaluation (RDT&E), and Aircraft Procurement, Navy (APN).											
E. Performance Metrics											
Successfully completed Preliminary Design Reveiw (PDR) in September 2008. As of December 15th, 2009, 45 of 75 Critical Design Reviews (CDRs) have been completed. This includes vendor CDRs, sub-system CDRs and the System level CDR.											

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Product Development (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPAF	Sikorsky Stratford, CT	1,330.109	432.447	Dec 2009	475.678	Dec 2010	0.000		475.678	2,441.802	4,680.036	4,680.036
GFE	Various/ Various	Various Not Specified	28.831	0.847	Dec 2009	2.229	Dec 2010	0.000		2.229	93.790	125.697	Continuing
Award Fees	SS/CPAF	Sikorsky Stratford, CT	45.747	30.025	Dec 2010	33.353	Dec 2011	0.000		33.353	122.458	231.583	231.583
Subtotal			1,404.687	463.319		511.260		0.000		511.260	2,658.050	5,037.316	4,911.619

Remarks

Award Fee earned in FY 2006 by Sikorsky Aircraft Corporation equaled sixty-three percent of available award fee pool.
Award Fee earned in FY 2007 by Sikorsky Aircraft Corporation equaled thirty-five percent of available award fee pool.
Award Fee earned in FY 2008 by Sikorsky Aircraft Corporation equaled fifty-six percent of available award fee pool.
Award Fee earned in FY 2009 by Sikorsky Aircraft Corporation equaled sixty-one percent of available award fee pool.
Primary Hardware Development Target Value of Contract includes FY14 LRIP 1 RDT&E contract not yet negotiated.

Support (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	Various Not Specified	0.000	0.000	Dec 2009	0.000	Dec 2010	0.000		0.000	27.717	27.717	Continuing
Integrated Logistics Support	WR	Various Not Specified	26.048	6.999	Dec 2009	7.857	Dec 2010	0.000		7.857	68.721	109.625	Continuing

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies & Analyses	Various/ Various	Various Not Specified	17.047	4.580	Dec 2009	5.142	Dec 2010	0.000		5.142	44.975	71.744	Continuing
Subtotal			43.095	11.579		12.999		0.000		12.999	141.413	209.086	
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various Not Specified	7.797	1.305	Dec 2009	1.137	Dec 2010	0.000		1.137	62.794	73.033	Continuing
Operational Test & Evaluation	WR	TBD Not Specified	0.095	0.500	Dec 2009	0.500	Dec 2010	0.000		0.500	34.500	35.595	Continuing
Live Fire Test & Evaluation	WR	NAWCWD China Lake, CA	2.020	0.060	Jan 2010	0.454	Jan 2011	0.000		0.454	10.664	13.198	Continuing
Subtotal			9.912	1.865		2.091		0.000		2.091	107.958	121.826	
Remarks													

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Management Services (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various/ Various	Various Not Specified	7.830	2.104	Dec 2009	2.362	Dec 2010	0.000		2.362	20.657	32.953	Continuing
Government Engineering Support	WR	NAWCAD Pax River, MD	114.893	30.871	Dec 2009	34.656	Dec 2010	0.000		34.656	303.126	483.546	Continuing
Program Management Support	Various/ Various	Various Not Specified	44.350	11.917	Dec 2009	13.378	Dec 2010	0.000		13.378	117.010	186.655	Continuing
Travel	WR	NAWCAD Pax River, MD	2.283	0.613	Dec 2009	0.689	Dec 2010	0.000		0.689	6.022	9.607	Continuing
Acquisition Workforce Fund	Various/ Various	Various Not Specified	1.950	0.000	Dec 2009	0.000	Dec 2010	0.000		0.000	0.000	1.950	Continuing
Subtotal			171.306	45.505		51.085		0.000		51.085	446.815	714.711	

Remarks

	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,629.000	522.268	577.435	0.000	577.435	3,354.236	6,082.939	4,911.619

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605212N: <i>CH-53K</i>	PROJECT 3059: <i>CH-53K Development</i>
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Fiscal Year	2009				2010				2011				2012				2013				2014				2015			
	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																												
RDT&E Contract Awards																												
Engineering Milestones																												
Logistics Milestones																												
Test & Evaluation Milestones																												
Production Milestones																												
Deliveries																												

As a result of the recent changes to the CH-53K funding profile to address program performance issues and schedule delays, the Navy is working with the System Development and Demonstration prime contractor on a schedule that supports an FY 2018 IOC.

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605212N: <i>CH-53K</i>	PROJECT 3059: <i>CH-53K Development</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
System Integration phase	1	2009	2	2011
Critical Design Review (CDR)	4	2010	4	2010
USD(AT&L) Design Readiness Review (DRR)	2	2011	2	2011
System Demonstration phase	2	2011	4	2015
Alternative Live Fire T&E (ALT&E) (Comp.)	1	2011	4	2015

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