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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0605212N: <i>CH-53K</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	503.927	577.435	629.461	-	629.461	609.796	534.043	478.966	465.922	Continuing	Continuing
3059: <i>CH-53K Development</i>	503.927	577.435	629.461	-	629.461	609.796	534.043	478.966	465.922	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 System Development and Demonstration (SDD), to be purchased with RDT&E funds. Of the remaining 200 Production-representative and Production aircraft, the first four Low Rate Initial Production (LRIP) aircraft will be RDT&E funded and the last two will be Aircraft Procurement, Navy (APN) funded. LRIP RDT&E test asset aircraft will be incrementally funded beginning in FY12. The LRIP contract to procure the two APN Articles is scheduled to award in FY16, with an Advanced Acquisition Contract award in FY15. The RDT&E aircraft will be used for Initial Operational Test and Evaluation and the APN aircraft establishing the IOC production base.

FY12 RDT&E efforts focus on CH-53K SDD activities that includes GTV and EDM fabrication and assembly, and preparation for ground and flight test.

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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>
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B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	522.268	577.435	659.989	-	659.989
Current President's Budget	503.927	577.435	629.461	-	629.461
Total Adjustments	-18.341	-	-30.528	-	-30.528
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.950	-			
• SBIR/STTR Transfer	-15.358	-			
• Program Adjustments	-	-	-27.705	-	-27.705
• Section 219 Reprogramming	-1.020	-	-	-	-
• Rate/Misc Adjustments	-	-	-2.823	-	-2.823
• Congressional General Reductions Adjustments	-0.013	-	-	-	-

Change Summary Explanation

Technical: Not applicable.

Schedule: No changes.

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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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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
3059: <i>CH-53K Development</i>	503.927	577.435	629.461	-	629.461	609.796	534.043	478.966	465.922	Continuing	Continuing
Quantity of RDT&E Articles	2	0	0	0	0	0	0	0	4		

A. Mission Description and Budget Item Justification

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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 System Development and Demonstration (SDD), to be purchased with RDT&E funds. Of the remaining 200 Production-representative and Production aircraft, the first four Low Rate Initial Production (LRIP) aircraft will be RDT&E funded and the last two will be Aircraft Procurement Navy (APN) funded. LRIP RDT&E test asset aircraft will be incrementally funded beginning in FY12. The LRIP contract to procure the two APN Articles is scheduled to award in FY16, with an Advanced Acquisition Contract award in FY15. The RDT&E aircraft will be used for Initial Operational Test and Evaluation and the APN aircraft establishing the IOC production base.

FY12 RDT&E efforts focus on CH-53K SDD activities that includes GTV and EDM fabrication and assembly, and preparation for ground and flight test.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Air Vehicle Development	444.978	511.260	543.721
Articles:	2	0	0
FY 2010 Accomplishments: Performed System Development and Demonstration (SDD) activities for the CH-53K air vehicles and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems.			
FY 2011 Plans: Perform SDD fabrication and assembly activities for the CH-53K EDM air vehicles and its associated subsystems and components, GFE and CH-53K ancillary systems.			
FY 2012 Plans:			

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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>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012	
Perform SDD fabrication and assembly activities for the CH-53K air vehicles and its associated subsystems and components, GFE and CH-53K ancillary systems.						
Title: Integrated Logistics Support						
			Articles:	13.444 0	15.090 0	24.167 0
FY 2010 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 (T&E) efforts.						
FY 2011 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 T&E efforts.						
FY 2012 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 T&E efforts.						
Title: Systems Engineering & Project Management						
			Articles:	45.505 0	51.085 0	61.573 0
FY 2010 Accomplishments: Conducted Critical Design Review. Funding supports 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 included, but were not limited to, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program.						
FY 2011 Plans: In-house, field activities, and contractors support of 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 2012 Plans:						

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
In-house, field activities, and contractors support of 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.			
Accomplishments/Planned Programs Subtotals	503.927	577.435	629.461

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2010	FY 2011	FY 2012	FY 2012	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Cost To	Total Cost
			Base	OCO	Total					Complete	
• APN/0158: <i>CH-53K (Heavy Lift)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	47.359	411.216	17,793.805	18,252.380

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 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 ID program, based on total estimated costs for Research, Development, Test and Evaluation, and APN. The SDD prime contract was awarded sole-source contract to Sikorsky Aircraft Corporation on 5 April, 2006, following the MS B decision. SDD efforts will develop and document technology maturations, selections, and integration into CH-53E design modifications for a new CH-53K variant; produce one CH-53K GTV and four CH-53K EDMs; and conduct and support T&E activities fulfilling milestone exit criteria.

E. Performance Metrics

Since MS B, the program team has followed a disciplined, event-driven, design and development process. The program completed Preliminary Design Review in September 2008 and conducted Critical Design Review in July 2010. System meets or exceeds all Key Performance Parameters.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

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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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	1,756.187	475.451	Dec 2010	508.412	Dec 2011	-		508.412	1,958.111	4,698.161	4,698.161
GFE	Various	Various:Various	29.678	2.229	Dec 2010	5.306	Dec 2011	-		5.306	89.169	126.382	
Award Fees	SS/CPAF	Sikorsky:Stratford, CT	63.800	33.580	Dec 2011	30.003	Sep 2012	-		30.003	92.411	219.794	219.794
Subtotal			1,849.665	511.260		543.721		-		543.721	2,139.691	5,044.337	

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.
 Award Fee earned in FY 2010 by Sikorsky Aircraft Corporation equaled sixty percent of available award fee pool.
 Primary Hardware Development Target Value of Contract includes LRIP RDT&E contract not yet negotiated.

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	Various	NAWCAD:Lakehurst, NJ	-	-		-		-		-	31.673	31.673	
Integrated Logistics Support	WR	NAWCAD:Lakehurst, NJ	-	4.000	Dec 2010	4.500	Dec 2011	-		4.500	2.552	11.052	
Integrated Logistics Support	WR	NADEP:Cherry Point, NC	-	2.000	Dec 2010	2.500	Dec 2011	-		2.500	2.000	6.500	
Integrated Logistics Support	WR	Various:Various	33.047	1.857	Dec 2010	2.084	Dec 2011	-		2.084	60.318	97.306	
Studies & Analyses	WR	NSWC:Crane, IN	-	4.000	Dec 2010	5.000	Dec 2011	-		5.000	9.272	18.272	
Studies & Analyses	Various	Various:Various	21.627	1.142	Dec 2010	1.272	Dec 2011	-		1.272	33.181	57.222	
Subtotal			54.674	12.999		15.356		-		15.356	138.996	222.025	

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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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:Various	9.102	1.137	Dec 2010	2.357	Dec 2011	-		2.357	59.951	72.547	
Developmental Test & Evaluation	WR	TBD:TBD	-	-		4.000	Dec 2011	-		4.000	0.000	4.000	
Operational Test & Evaluation	WR	COMPTEVFOR:Norfolk, VA	0.595	0.500	Dec 2010	2.000	Dec 2011	-		2.000	42.013	45.108	
Live Fire Test & Evaluation	WR	NAWCWD:China Lake, CA	2.080	0.454	Jan 2011	0.454	Dec 2011	-		0.454	16.239	19.227	
Subtotal			11.777	2.091		8.811		-		8.811	118.203	140.882	

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	9.934	2.362	Dec 2010	2.881	Dec 2011	-		2.881	19.500	34.677	
Government Engineering Support	WR	NAWCAD:Pax River, MD	145.764	34.656	Dec 2010	41.559	Dec 2011	-		41.559	279.729	501.708	
Program Management Support	C/CPFF	Camber:MD	-	11.000	Dec 2010	12.000	Dec 2011	-		12.000	0.000	23.000	23.000
Program Management Support	Various	Various:Various	56.267	2.378	Dec 2010	4.293	Dec 2011	-		4.293	110.352	173.290	
Travel	WR	NAWCAD:Pax River, MD	2.896	0.689	Dec 2010	0.840	Dec 2011	-		0.840	5.686	10.111	
Acquisition Workforce Fund	Various	Various:Various	1.950	-		-		-		-	0.000	1.950	
Subtotal			216.811	51.085		61.573		-		61.573	415.267	744.736	

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		2,132.927	577.435	629.461	-	629.461	2,812.157	6,151.980

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	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
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Remarks
 The PB-11 budget fully funded the CH-53K program to the OSD CAPE estimate of \$6,082.9M and supported a FY18 IOC. Adjustments leading up to the PB-12 budget controls reduced program funding. These reductions would result in a program schedule delay of approximately 7 months and associated net cost increase of \$69.0M (total cost increase from \$6,082.9 to \$6,152.0).

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CH-53K Development				
Acquisition Milestones: Milestones: System Integration phase	1	2010	2	2011
Acquisition Milestones: Milestones: System Demonstration phase	2	2011	4	2016
Acquisition Milestones: Milestones: Integrated Logistics Assessment (ILA)	3	2015	3	2015
Acquisition Milestones: Milestones: Milestone C	4	2015	4	2015
System Development: Reviews: Critical Design Review (CDR)	4	2010	4	2010
System Development: Reviews: DRR/Post CDR Assessment	2	2011	2	2011
System Development: Reviews: Flight Readiness Review (FRR)	4	2012	4	2012
System Development: Reviews: Production Readiness Review (PRR)	3	2014	3	2014
System Development: Development Deliveries: Ground Test Vehicle (GTV) Delivery	3	2012	3	2012
System Development: Development Deliveries: Engineering Development Model (EDM) #1 delivery	4	2012	4	2012
System Development: Development Deliveries: Engineering Development Model (EDM) #2 delivery	2	2013	2	2013
System Development: Development Deliveries: Engineering Development Model (EDM) #3 delivery	4	2013	4	2013
System Development: Development Deliveries: Engineering Development Model (EDM) #4 delivery	2	2014	2	2014
Test & Evaluation: Developmental Test & Evaluation: Alternative Live Fire T&E (ALFT&E) (Comp.)	1	2011	4	2016
Test & Evaluation: Developmental Test & Evaluation: Developmental Test / TECHEVAL	1	2013	4	2016
Test & Evaluation: Developmental Test & Evaluation: First Flight	2	2013	2	2013
	2	2015	2	2015

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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Test & Evaluation: Operational Test & Evaluation: Operational Test & Evaluation (OT) B1 (OT-B1)				
Production Milestones: Contract Award: LRIP 1 Contract Award	1	2016	1	2016