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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Navy	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605212N: <i>CH-53K</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	558.152	624.461	606.204	-	606.204	534.767	531.141	480.278	369.209	340.250	4,044.462
3059: <i>CH-53K Development</i>	558.152	624.461	606.204	-	606.204	534.767	531.141	480.278	369.209	340.250	4,044.462

**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, 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 aircraft, four System Demonstration Test Articles (SDTA's) will be RDT&E funded and the remaining will be Aircraft Procurement, Navy (APN) funded. The SDTA's will be incrementally funded beginning in FY13. The SDTA's will be used to prove out production and integration processes for airworthy helicopters on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. In FY16, a Low Rate Initial Production 1 (LRIP 1) contract will be awarded to procure two APN Articles with an Advanced Acquisition Contract award in FY15.

FY13 RDT&E efforts focus on CH-53K SDD activities that includes GTV and EDM fabrication and assembly, ground testing, flight test preparation, and initial funding for SDTA's.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>
Previous President's Budget	577.435	629.461	609.796	-	609.796
Current President's Budget	558.152	624.461	606.204	-	606.204
Total Adjustments	-19.283	-5.000	-3.592	-	-3.592
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-16.346	-			
• Program Adjustments	-	-	-3.535	-	-3.535
• Rate/Misc Adjustments	-	-	-0.057	-	-0.057
• Congressional General Reductions Adjustments	-2.937	-	-	-	-

**Change Summary Explanation**

Technical: Not applicable.

Schedule: Delays in design maturity, aircraft fuselage skin qualification, and production issues caused Engineering Development Models (EDMs) to move to FY14. Production Review Readiness (PRR) moved from 3Q14 to 1Q15.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K				PROJECT 3059: CH-53K Development			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3059: CH-53K Development	558.152	624.461	606.204	-	606.204	534.767	531.141	480.278	369.209	340.250	4,044.462
Quantity of RDT&E Articles	0	0	0	0	0	0	0	4	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, 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 System Development and Demonstration (SDD), to be purchased with RDT&amp;E funds. Of the remaining 200 aircraft, four System Demonstration Test Articles (SDTA's) will be RDT&amp;E funded and the remaining will be Aircraft Procurement, Navy (APN) funded. The SDTA's will be incrementally funded beginning in FY13. The SDTA's will be used to prove out production and integration processes for airworthy helicopters on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. In FY16, a Low Rate Initial Production 1 (LRIP 1) contract will be awarded to procure two APN Articles with an Advanced Acquisition Contract award in FY15.</p> <p>FY13 RDT&amp;E efforts focus on CH-53K SDD activities that includes GTV and EDM fabrication and assembly, ground testing, flight test preparation, and initial funding for SDTA's.</p>											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Air Vehicle Development								493.926	543.721	500.964	
								Articles: 0	0	0	
FY 2011 Accomplishments: Perform SDD fabrication and assembly activities for the CH-53K EDM air vehicles and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems.											
FY 2012 Plans:											

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K		PROJECT 3059: CH-53K Development
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Perform SDD fabrication and assembly activities for the CH-53K air vehicles and its associated subsystems and components, GFE and CH-53K ancillary systems.  <b>FY 2013 Plans:</b> Perform Systems Design and Development fabrication and assembly activities for the CH-53K EDM air vehicles and its associated subsystems and components, GFE and CH-53K ancillary systems. Initiate System Demonstration Test Articles procurement and start aircraft systems ground testing and flight test preparation.				
<b>Title:</b> Integrated Logistics Support and Test & Evaluation  <b>FY 2011 Accomplishments:</b> Perform in-house, field activity, and contractor support of Integrated Logistic support and Test & Evaluation (T&E) 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.  <b>FY 2012 Plans:</b> Perform in-house, field activity, and contractor support of Integrated Logistic support and T&E 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.  <b>FY 2013 Plans:</b> Perform in-house, field activity, and contractor support of Integrated Logistic support. T&E activities include further component qualifications and inital Ground Test Vehicle testing. Continue to increase staffing of Integrated Test Team in preparation for flight test.		Articles: 10.635 0	24.167 0	39.265 0
<b>Title:</b> Systems Engineering & Project Management  <b>FY 2011 Accomplishments:</b> In-house, field activitiy, and contractor 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.  <b>FY 2012 Plans:</b> In-house, field activitiy, and contractor 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,		Articles: 53.591 0	56.573 0	65.975 0

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K				PROJECT 3059: CH-53K Development			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program.											
FY 2013 Plans: In-house, field activitiy, and contractor support of IPTs to allow for the examination and certification of equipment and avionics for the CH-53K. Efforts include continued component qualification, preparation for Engineering Development Model flight certification, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program.											
Accomplishments/Planned Programs Subtotals									558.152	624.461	606.204
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• APN/0158: CH-53K (Heavy Lift)	0.000	0.000	0.000	0.000	0.000	0.000	47.253	410.267	417.184	18,176.010	19,050.714
• APN/0605: CH-53K Initial Spares	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.853	74.290	1,298.067	1,403.210
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 Systems Design and Development (SDD). The Under Secretary of the Defense (Acquisition, Technology and Logistics) signed the Acquisition Decision Memorandum 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 Aircraft Procurement Navy. 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 Ground Test Vehicle and four CH-53K Engineering Developmental Models; and conduct and support T&E activities fulfilling milestone exit criteria. In FY13, the SDD contract will be modified to include four System Demonstration Test Articles.											
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 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K				PROJECT 3059: CH-53K Development						
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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/CPIF	Sikorsky:Stratford, CT	2,231.295	517.401	Dec 2011	452.860	Dec 2012	-		452.860	1,504.228	4,705.784	4,705.784	
GFE	Various	Various:Various	30.878	5.306	Dec 2011	30.000	Dec 2012	-		30.000	80.737	146.921		
Award Fees	SS/CPAF	Sikorsky:Stratford, CT	73.400	-		-		-		-	0.000	73.400	73.400	
Incentive Fees	SS/CPIF	Sikorsky:Stratford, CT	9.550	21.014	Sep 2012	18.164	Sep 2013	-		18.164	51.284	100.012	100.012	
Subtotal			2,345.123	543.721		501.024		-		501.024	1,636.249	5,026.117		
Remarks Award Fee earned prior to contract conversion was fifty-five percent of the available award fee pool. CPAF to CPIF contract conversion awarded 31 Mar 11. Primary Hardware Development Target Value of Contract includes System Demonstration Test Articles (SDTA's).														
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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	-	-		4.552	Dec 2012	-		4.552	27.121	31.673		
Integrated Logistics Support	WR	NAWCAD:Lakehurst, NJ	4.000	4.500	Dec 2011	4.800	Dec 2012	-		4.800	20.000	33.300		
Integrated Logistics Support	WR	NADEP:Cherry Point, NC	2.000	2.500	Dec 2011	2.950	Dec 2012	-		2.950	15.000	22.450		
Integrated Logistics Support	WR	Various:Various	34.904	2.084	Dec 2011	2.750	Dec 2012	-		2.750	23.022	62.760		
Studies & Analyses	WR	NSWC:Crane, IN	2.000	5.000	Dec 2011	5.000	Dec 2012	-		5.000	9.272	21.272		
Studies & Analyses	Various	Various:Various	21.627	1.272	Dec 2011	1.300	Dec 2012	-		1.300	25.462	49.661		
Subtotal			64.531	15.356		21.352		-		21.352	119.877	221.116		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					PROJECT				
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)					PE 0605212N: CH-53K					3059: CH-53K Development				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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	10.239	2.357	Dec 2011	6.213	Dec 2012	-		6.213	44.371	63.180		
Developmental Test & Evaluation	WR	TBD:TBD	-	4.000	Dec 2011	6.180	Dec 2012	-		6.180	0.000	10.180		
Operational Test & Evaluation	WR	COMPTEVFOR:Norfolk, VA	1.095	2.000	Dec 2011	4.000	Dec 2012	-		4.000	29.178	36.273		
Live Fire Test & Evaluation	WR	NAWCWD:China Lake, CA	2.534	0.454	Dec 2011	1.520	Dec 2012	-		1.520	11.848	16.356		
Subtotal			13.868	8.811		17.913		-		17.913	85.397	125.989		
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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	12.296	2.621	Dec 2011	2.930	Dec 2012	-		2.930	18.077	35.924		
Government Engineering Support	WR	NAWCAD:Pax River, MD	180.420	38.159	Dec 2011	46.101	Dec 2012	-		46.101	265.235	529.915		
Program Management Support	C/CPFF	Camber:MD	11.000	11.500	Dec 2011	11.500	Dec 2012	-		11.500	20.000	54.000	54.000	
Program Management Support	Various	Various:Various	58.645	3.793	Dec 2011	4.844	Dec 2012	-		4.844	82.385	149.667		
Travel	WR	NAWCAD:Pax River, MD	3.246	0.500	Dec 2011	0.540	Dec 2012	-		0.540	4.771	9.057		
Acquisition Workforce Fund	Various	Various:Various	1.950	-		-		-		-	0.000	1.950		
Subtotal			267.557	56.573		65.915		-		65.915	390.468	780.513		
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			2,691.079	624.461		606.204		-		606.204	2,231.991	6,153.735		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Navy						<b>DATE:</b> February 2012			
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	<b>Total Prior Years Cost</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Remarks</b>									



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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605212N: <i>CH-53K</i>	PROJECT 3059: <i>CH-53K Development</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605212N: <i>CH-53K</i>	<b>PROJECT</b> 3059: <i>CH-53K Development</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>CH-53K Development</b>				
Acquisition Milestones: Milestones: System Integration phase	1	2011	2	2011
Acquisition Milestones: Milestones: System Demonstration phase	2	2011	4	2017
Acquisition Milestones: Milestones: Integrated Logistics Assessment (ILA)	3	2015	3	2015
Acquisition Milestones: Milestones: Milestone C	4	2015	4	2015
System Development: Reviews: DRR/Post CDR Assessment	2	2011	2	2011
System Development: Reviews: Flight Readiness Review (FRR) - GTV	4	2012	4	2012
System Development: Reviews: Flight Readiness Review (FRR) - 1st Flight	4	2013	4	2013
System Development: Reviews: Production Readiness Review (PRR)	1	2015	1	2015
System Development: Development Deliveries: Ground Test Vehicle (GTV) Delivery	3	2012	3	2012
System Development: Development Deliveries: Engineering Development Model (EDM) #1 delivery	1	2014	1	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #2 delivery	2	2014	2	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #3 delivery	3	2014	3	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #4 delivery	4	2014	4	2014
Test & Evaluation: Developmental Test & Evaluation: Alternative Live Fire T&E (ALFT&E) (Comp.)	1	2011	4	2017
Test & Evaluation: Developmental Test & Evaluation: Developmental Test / TECHEVAL	1	2014	4	2017
Test & Evaluation: Developmental Test & Evaluation: GTV Light Off	2	2013	2	2013
Test & Evaluation: Developmental Test & Evaluation: First Flight	2	2014	2	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0605212N: CH-53K		PROJECT 3059: CH-53K Development
		Start		End
Events by Sub Project		Quarter	Year	Quarter Year
Test & Evaluation: Operational Test & Evaluation: Operational Test & Evaluation (OT) B1 (OT-B1)		2	2015	2 2015
Production Milestones: Contract Awards: System Demonstration Test Articles (SDTA) Award		1	2013	1 2013
Production Milestones: Contract Awards: LRIP Advance Acquisition Contract		1	2015	1 2015
Production Milestones: Contract Awards: LRIP 1 Contract Award		1	2016	1 2016
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *1		2	2017	2 2017
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *2		3	2017	3 2017
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *3		4	2017	4 2017