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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605229F / <i>CSAR HH-60 Recapitalization</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	372.346	100.000	156.085	319.331	0.000	319.331	453.464	460.912	183.325	21.207	3.400	2,070.070
654364: <i>Combat Rescue Helicopter</i>	372.346	100.000	156.085	319.331	0.000	319.331	453.464	460.912	183.325	21.207	3.400	2,070.070
Quantity of RDT&E Articles	4	-	-	5	-	5	-	-	-	-		

Program MDAP/MAIS Code: 479

A. Mission Description and Budget Item Justification

The Combat Rescue Helicopter (CRH) program, formerly referred to as HH-60 Recapitalization, will replace the aging HH-60G. The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day / night / marginal weather Combat Search and Rescue (CSAR) in order to recover downed aircrew or other isolated personnel in hostile or non-permissive environments.

The CRH will be capable of employment day or night, in adverse weather, and in a variety of threat spectrums from terrorist attacks to chemical, biological, radiological, and nuclear threats. Onboard defensive capabilities will permit the CRH system to operate in an increased threat environment. An in-flight air refueling capability will provide an airborne alert capability and extend its combat mission range. The CRH system may conduct combat search and rescue airborne mission commander duties. The aircraft will be self-supporting to the maximum extent practical. The CRH system may also conduct other collateral missions inherent in their capabilities to conduct Personnel Recovery, such as non-conventional assisted recovery, non-conventional evacuation operations, defense support to civil authorities, civil search and rescue, international aid, emergency aeromedical evacuation, disaster/humanitarian relief, counterdrug activities, support for National Aeronautics and Space Administration flight operations, and insertion/extraction of combat forces.

The CRH development effort will procure a total of nine developmental test aircraft and other necessary ground and flight assets. The exercised portion of the CRH contract also includes development of the complete CRH training system to include CRH Weapon System Trainer (WST), Operational Flight Trainer (OFT), Airframe Systems Trainer (AST), other maintenance training devices, as well as Type 1 training and courseware required to perform aircrew and maintenance training. Other efforts include, but are not limited to, development of a systems integration laboratory and an avionics integration support facility, as well as procurement of data rights and licenses, spares, initiating System Demonstration Test Article (SDTA) development, and product support for the Engineering, Manufacturing, and Development effort.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

The FY 2017 funding request was reduced by \$100 million to account for availability of prior execution balances.

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	100.000	156.085	422.514	0.000	422.514
Current President's Budget	100.000	156.085	319.331	0.000	319.331
Total Adjustments	0.000	0.000	-103.183	0.000	-103.183
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-103.183	0.000	-103.183

Change Summary Explanation

The FY 2017 funding request was reduced by \$100 million to account for availability of prior execution balances. The remaining \$3.183M was reduced due to decreased inflation rates.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
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Title: Combat Rescue Helicopter (CRH)	99.620	148.685	309.231
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Description: Develop a new helicopter, associated training system and support elements that leverage fielded, non-developmental technologies to recapitalize the HH-60G fleet.

FY 2015 Accomplishments:

Conducted development work on Combat Rescue Helicopter aircraft, training systems and associated product support. Conducted required testing. Management services including studies and analyses, miscellaneous program office support, travel, office supplies, training courses and service contracts. Conducted Aircraft Systems Requirement Review/System Functional Review and Training Systems Requirements Review/System Functional Review.

FY 2016 Plans:

Conduct development work on Combat Rescue Helicopter aircraft, training systems and associated product support. Conduct required testing. Management services including studies and analyses, miscellaneous program office support, travel, office supplies, training courses and service contracts. Conduct Aircraft Preliminary Design Review.

FY 2017 Plans:

Conduct development work on Combat Rescue Helicopter aircraft, training systems and associated product support. Activate the CLIN to develop the SDTA Aircraft and conduct required testing. Management services including studies and analyses,

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
miscellaneous program office support, travel, office supplies, training courses and service contracts. Conduct Training System Preliminary Design Review and both Air Vehicle and Training System Critical Design Reviews.			
Title: Combat Rescue Helicopter Test and Evaluation	0.380	7.400	10.100
Description: Conduct test and evaluation on the Combat Rescue Helicopter and associated training systems to support Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation, and other test planning and organizational support.			
FY 2015 Accomplishments: Conducted test and evaluation on the Combat Rescue Helicopter and associated training systems to support Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation, and other test planning and organizational support.			
FY 2016 Plans: Test and evaluation of the Combat Rescue Helicopter and associated training systems will be conducted including the following types of test activities: Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation, and other test planning and organizational support. Additional manpower at government test due to mission increase.			
FY 2017 Plans: Test and evaluation of the Combat Rescue Helicopter and associated training systems will be conducted including the following types of test activities: Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation, and other test planning and organizational support.			
Accomplishments/Planned Programs Subtotals	100.000	156.085	319.331

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>						
• APAF:BA 04:Line Item #H060WH: <i>Combat Rescue Helicopter</i>	0.000	0.000	0.000	0.000	0.000	0.000	88.885	623.047	913.337	6,071.308	7,696.565

Remarks

E. Acquisition Strategy
Procure a new helicopter and associated training systems, and support elements that leverage fielded non-developmental technologies to recapitalize the HH-60G fleet.

The CRH development effort will procure a total of nine developmental test aircraft and other necessary ground and flight assets, to be utilized for both DT and IOT&E.

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The exercised portion of the CRH contract also includes development of the complete CRH training system to include CRH Weapon System Trainer (WST), Operational Flight Trainer (OFT), Airframe Systems Trainer (AST), other maintenance training devices, as well as Type 1 training and courseware required to perform aircrew and maintenance training. There is a single prime contractor delivering the aircraft, associated training systems and support elements under a single contract.

Other efforts include, but are not limited to, development of a systems integration laboratory and an avionics integration support facility, as well as procurement of data rights and licenses, spares, initiating System Demonstration Test Article (SDTA) development, and product support for the Engineering, Manufacturing, and Development effort.

The contract type for this effort is Fixed Price Incentive Firm through Low Rate Initial Production.

F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 5				PE 0605229F / CSAR HH-60 Recapitalization				654364 / Combat Rescue Helicopter							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CRH aircraft development, integration, test articles, trainers, support and contractor test	C/FPIF	Sikorsky Aircraft Corporation : Stratford, CT	357.984	94.097	Mar 2015	137.877	Jan 2016	299.399	Dec 2016	0.000		299.399	1,026.902	1,916.259	1,916.259
Subtotal			357.984	94.097		137.877		299.399		0.000		299.399	1,026.902	1,916.259	1,916.259
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CRH product support related to the aircraft development, integration, test articles, trainers, and contractor test.	Various	Various : TBD	2.251	0.455	Jun 2015	4.350	Jun 2016	3.129	Jun 2017	0.000		3.129	19.542	29.727	29.727
Subtotal			2.251	0.455		4.350		3.129		0.000		3.129	19.542	29.727	29.727
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CRH planning and testing to support developmental and operational test, live fire test and other weapon system testing and support	PO	413th Test Squadron : Eglin AFB, FL	1.232	0.380	Jul 2015	7.400	Mar 2016	10.100	Dec 2016	0.000		10.100	57.308	76.420	76.420
Subtotal			1.232	0.380		7.400		10.100		0.000		10.100	57.308	76.420	76.420

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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CRH A&AS Support	C/CPFF	EPASS : Dayton, OH	9.935	3.774	Jan 2015	4.343	Apr 2016	5.310	Apr 2017	0.000		5.310	15.007	38.369	38.369
CRH Other PMA	Various	Various : Various	0.944	1.294	Jan 2015	2.115	Dec 2015	1.393	Dec 2016	0.000		1.393	3.549	9.295	9.295
Subtotal			10.879	5.068		6.458		6.703		0.000		6.703	18.556	47.664	47.664
Project Cost Totals			372.346	100.000		156.085		319.331		0.000		319.331	1,122.308	2,070.070	2,070.070

Remarks
 FINANCIAL PERFORMANCE: CRH is evaluated against traditional Research and Development (R&D) program expenditure benchmarks. Unlike many traditional R&D programs, however, the CRH EMD contract is a FPIF contract with progress payments. Twenty percent of incurred costs are withheld until the end of the contract, when they are liquidated. Mandatory funding obligations and progress payment withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program health.

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force		Date: February 2016
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CRH EMD Development	1	2015	3	2020
Aircraft System Requirements Review	3	2015	3	2015
Aircraft Preliminary Design Review	3	2016	3	2016
Aircraft Critical Design Review	4	2017	4	2017
CRH Training System EMD Development	1	2015	4	2020
Training Systems System Requirements Review	3	2015	3	2015
Training Systems Preliminary Design Review	1	2017	1	2017
Training Systems Critical Design Review	4	2017	4	2017
CRH Test and Evaluation	1	2015	4	2020
Developmental Test and Evaluation	4	2018	2	2020
Milestone C	1	2020	1	2020
Required Assets Available for Initial Operational Capability	4	2020	4	2020