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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605229F I Combat Rescue Helicopter							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	472.534	150.341	319.331	354.485	0.000	354.485	461.096	233.790	37.996	21.644	3.400	2,054.617
654364: Combat Rescue Helicopter	472.534	150.341	319.331	354.485	0.000	354.485	461.096	233.790	37.996	21.644	3.400	2,054.617
Quantity of RDT&E Articles	4	-	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 four 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.

The FY 2018 funding request was reduced by \$98.979 million to account for the availability of prior year execution balances.

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.

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B. Program Change Summary (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget		156.085	319.331	453.464	0.000	453.464
Current President's Budget		150.341	319.331	354.485	0.000	354.485
Total Adjustments		-5.744	0.000	-98.979	0.000	-98.979
• 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		-2.838	0.000			
• SBIR/STTR Transfer		-2.906	0.000			
• Other Adjustments		0.000	0.000	-98.979	0.000	-98.979
Change Summary Explanation						
FY 2016 funding was reduced by \$5.744M. \$2.838M was reprogrammed to Compass Call and \$2.906M was used for SBIR.						
The FY 2018 funding request was reduced by \$98.979 million to account for the availability of prior year execution balances.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018
Title: Combat Rescue Helicopter (CRH)				147.016	314.031	344.585
Description: Develop a new helicopter, associated training system and support elements that leverage fielded, non-developmental technologies to recapitalize the HH-60G fleet.						
FY 2016 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 Air Vehicle and Training Systems 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 five SDTA Aircraft and conduct required testing. Purchase Live Fire Test & Evaluation (LFT&E) Assets. Management services including studies and analyses, miscellaneous program office support, travel, office supplies, training courses and service contracts. Conduct both Air Vehicle and Training System Critical Design Reviews.						
FY 2018 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
Conduct development work on Combat Rescue Helicopter aircraft, training systems and associate product support. Continue to develop the EMD and SDTA Aircrafts and conduct required testing. Initiate pre-operational support, aircrew training, and maintenance support for support and integration facilities. Initiate facilities and equipment design for Electronic Warfare Integrated Reprogramming (EWIR) capability. Management services including studies and analyses, miscellaneous program office support, travel, office supplies, training courses and service contracts. Plan to award TSA III Delta Training Device contract in Mar 2018.												
Title: Combat Rescue Helicopter Government Test and Evaluation										3.325	5.300	9.900
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 2016 Accomplishments: Conducted Developmental Test and Evaluation planning by participating in the Air Vehicle and Training System Preliminary Design Reviews, began Operational Test and Evaluation planning, and continued Live Fire Test and Evaluation (LFT&E) analysis, and other test planning and organizational support. Preliminary LFT&E analysis was conducted using the contractor’s design information to determine the vulnerability of the overall system.												
FY 2017 Plans: Continue Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation analysis, and other test planning and organizational support. Witness contractor qualification testing on subcomponents. Attend Air Vehicle and Training System Critical Design Reviews to further develop plans for Government testing.												
FY 2018 Plans: Continue Developmental Test and Evaluation planning, Operational Test and Evaluation planning, Live Fire Test and Evaluation, and other test planning and organizational support. Continue to witness contractor qualification testing on subcomponents. Support contractor’s Test Readiness Review and First Flight Readiness Reviews in preparation for test conduct.												
Accomplishments/Planned Programs Subtotals										150.341	319.331	354.485
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• APAF:BA 04:Line Item #H060WH: Combat Rescue Helicopter	0.000	0.000	0.000	0.000	0.000	88.885	623.047	913.337	931.628	5,300.700	7,857.627	
Remarks												

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E. Acquisition Strategy <p>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. 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), Avionics Desktop Trainer (AVDTT), Airframe Systems Trainer (AST), other maintenance Part Task Trainers, 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.</p> <p>The contract type for this effort is Fixed Price Incentive Firm through Low Rate Initial Production.</p> <p>As originally planned following source selection, a formal HH-60W Training System Requirements Analysis (TSRA) was conducted in Sep 2015. This analysis identified some additional training requirements not accounted for in the original contract. Current approach is to acquire these additional training devices via the AFLCMC Simulator Program Office's Multiple Award Indefinite Delivery Indefinite Quantity (IDIQ) contract called TSA III.</p>		
F. Performance Metrics <p>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.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0605229F / Combat Rescue Helicopter				Project (Number/Name) 654364 / Combat Rescue Helicopter					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	451.905	138.224	May 2016	306.471	Dec 2016	329.343	Dec 2017	0.000		329.343	690.895	1,916.838	1,916.838
Acquisition of additional CRH training devices	C/FFP	TBD : TBD	0.000	0.000		0.000		6.600	Dec 2017	0.000		6.600	26.400	33.000	33.000
Subtotal			451.905	138.224		306.471		335.943		0.000		335.943	717.295	1,949.838	1,949.838
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	2.056	2.617	Mar 2016	0.668	Jun 2017	0.846	Jun 2018	0.000		0.846	1.048	7.235	7.235
Subtotal			2.056	2.617		0.668		0.846		0.000		0.846	1.048	7.235	7.235
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	2.567	3.325	Jun 2016	5.300	Dec 2016	9.900	Dec 2017	0.000		9.900	23.300	44.392	44.392
Subtotal			2.567	3.325		5.300		9.900		0.000		9.900	23.300	44.392	44.392

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Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 A&AS Support	C/CPFF	EPASS : Dayton, OH	13.953	4.428	Mar 2016	4.447	Apr 2017	5.396	Apr 2018	0.000		5.396	11.283	39.507	39.507
CRH Other PMA	Various	Various : Various	2.053	1.747	Dec 2015	2.445	Dec 2016	2.400	Dec 2017	0.000		2.400	5.000	13.645	13.645
Subtotal			16.006	6.175		6.892		7.796		0.000		7.796	16.283	53.152	53.152
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			472.534	150.341		319.331		354.485		0.000		354.485	757.926	2,054.617	-
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, progress payment restrictions and DFAS withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program health.															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force

Date: May 2017

Appropriation/Budget Activity

3600 / 5

R-1 Program Element (Number/Name)PE 0605229F / *Combat Rescue Helicopter*

Project (Number/Name)	Start Date	End Date	Status	Manager	Budget (USD)	Actual Cost (USD)	Progress (%)	Risk Level	Notes
101	2023-01-15	2023-03-31	Completed	John Doe	150000	148000	100	Low	Project completed ahead of schedule.
102	2023-02-01	2023-04-30	In Progress	Jane Smith	200000	180000	90	Medium	Minor delays in procurement.
103	2023-03-01	2023-05-31	On Hold	Mike Johnson	180000	0	0	High	Waiting for client approval.
104	2023-04-01	2023-06-30	Planned	Sarah Lee	220000	0	0	Medium	Initial planning phase.
105	2023-05-01	2023-07-31	On Hold	David Kim	190000	0	0	Low	Resource allocation pending.
106	2023-06-01	2023-08-31	Planned	Emily White	210000	0	0	Medium	Scope definition in progress.
107	2023-07-01	2023-09-30	On Hold	Chris Brown	170000	0	0	Low	Market research ongoing.
108	2023-08-01	2023-10-31	Planned	Alex Green	230000	0	0	Medium	Vendor selection process.
109	2023-09-01	2023-11-30	On Hold	Mia Black	160000	0	0	Low	Legal review required.
110	2023-10-01	2023-12-31	Planned	Noah Grey	240000	0	0	Medium	Final budget review.

654364 / *Combat Rescue Helicopter*

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022															
	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												
CRH EMD Development																																								
Air Vehicle Preliminary Design Review																																								
Air Vehicle Critical Design Review																																								
CRH Training System EMD Development																																								
Training Systems Preliminary Design Review																																								
Training Systems Critical Design Review																																								
CRH Test and Evaluation																																								
Developmental Test and Evaluation																																								
Milestone C																																								
Required Assets Available for Initial Operational Capability																																								

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605229F / <i>Combat Rescue Helicopter</i>	Project (Number/Name) 654364 / <i>Combat Rescue Helicopter</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CRH EMD Development	1	2016	3	2020
Air Vehicle Preliminary Design Review	3	2016	3	2016
Air Vehicle Critical Design Review	3	2017	3	2017
CRH Training System EMD Development	1	2016	4	2020
Training Systems Preliminary Design Review	4	2016	4	2016
Training Systems Critical Design Review	4	2017	4	2017
CRH Test and Evaluation	1	2016	4	2020
Developmental Test and Evaluation	4	2018	2	2020
Milestone C	4	2019	4	2019
Required Assets Available for Initial Operational Capability	2	2020	2	2020