Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force

Date: May 2017

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

PE 0102110F I UH-1N Replacement Program

Operational Systems Development

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	-	0.000	14.116	108.617	0.000	108.617	298.690	33.400	15.000	0.000	0.000	469.823
672021: UH-1N Replacement Program	-	0.000	14.116	108.617	0.000	108.617	298.690	33.400	15.000	0.000	0.000	469.823
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Program MDAP/MAIS Code: 562

A. Mission Description and Budget Item Justification

The UH-1N Replacement program will replace the Air Force fleet of UH-1N aircraft with modern helicopters that will close significant mission capability gaps associated with the current fleet of UH-1N aircraft. The replacement aircraft will provide vertical airlift and support the requirements of five Air Force major commands and operating agencies: Air Force Global Strike Command (AFGSC), Air Force District of Washington, Air Education and Training Command, Pacific Air Forces, and Air Force Materiel Command. AFGSC is the Air Force lead command and operational capability requirements sponsor. This program is an element of the Air Force's nuclear enterprise reform initiatives.

This program is in Budget Activity 7, Operational System Development because this budget activity includes integration efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

In 2017 UH-1N Replacement 3600 funding was a new start.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	0.000	14.116	19.675	0.000	19.675
Current President's Budget	0.000	14.116	108.617	0.000	108.617
Total Adjustments	0.000	0.000	88.942	0.000	88.942
 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	88.942	0.000	88.942

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force		Date: May 2017
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3600: Research, Development, Test & Evaluation, Air Force I BA 7:	PE 0102110F I UH-1N Replacement Program	
Operational Systems Development		

Change Summary Explanation

C. Accomplishments/Planned Programs (\$ in Millions)

FY18 funding was increased \$88.942M based on market research and industry engagement. The Air Force confirmed the UH-1N Replacement program will require non-developmental item (NDI) integration onto an airworthiness-certified helicopter to meet requirements. The exact scope of NDI integration varies based on the potential offerors' platforms. However, this effort will involve one-time non-reoccurring engineering (NRE) activities to complete NDI integration of mature technologies and associated testing and certifications. FY18 will also incrementally fund the procurement of four developmental helicopters and support the integration of UH-1N Replacement operational mission planning and aircrew training systems associated with the aircraft solution. A Developmental Test (DT) effort will be necessary to validate the successful NDI integration and demonstrate performance of new capabilities. Operational Testing (OT) will be necessary to validate the solution's operational performance, effectiveness, and suitability. The DT/OT programs will be integrated to maximum extent possible for schedule efficiency. The Air Force also believes live fire test and evaluation activities will be necessary to assess compliance with the force protection and survivability requirements.

FY 2016

FY 2017

FY 2018

Description: Integration of non-developmental equipment and other capabilities into existing aircraft system and technical/ manufacturing baselines to achieve UH-1N Replacement operational capability requirements. FY 2016 Accomplishments: N/A FY 2017 Plans: Evaluated the design and specifications of potential platforms, to include government systems engineering tasks. FY 2018 Plans: Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft. Title: UH-1N Replacement Test and Evaluation Description: System and subsystem test and evaluation of the UH-1N Replacement solution. FY 2016 Accomplishments: N/A	·		I	
manufacturing baselines to achieve UH-1N Replacement operational capability requirements. FY 2016 Accomplishments: N/A FY 2017 Plans: Evaluated the design and specifications of potential platforms, to include government systems engineering tasks. FY 2018 Plans: Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft. Title: UH-1N Replacement Test and Evaluation Description: System and subsystem test and evaluation of the UH-1N Replacement solution. FY 2016 Accomplishments: N/A	Title: UH-1N Replacement Weapon System Integration	0.000	13.916	108.340
N/A FY 2017 Plans: Evaluated the design and specifications of potential platforms, to include government systems engineering tasks. FY 2018 Plans: Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft. Title: UH-1N Replacement Test and Evaluation 0.000 0.200 0.200 0.201 0.202 0.203 0.204 0.205 0.206 0.207 0.207 0.208 0.208 0.209 0.209 0.209 0.209 0.200 0.	Description: Integration of non-developmental equipment and other capabilities into existing aircraft system and technical/manufacturing baselines to achieve UH-1N Replacement operational capability requirements.			
Evaluated the design and specifications of potential platforms, to include government systems engineering tasks. FY 2018 Plans: Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft. Title: UH-1N Replacement Test and Evaluation 0.000 0.200 0	FY 2016 Accomplishments: N/A			
Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft. Title: UH-1N Replacement Test and Evaluation Description: System and subsystem test and evaluation of the UH-1N Replacement solution. FY 2016 Accomplishments: N/A	FY 2017 Plans: Evaluated the design and specifications of potential platforms, to include government systems engineering tasks.			
Description: System and subsystem test and evaluation of the UH-1N Replacement solution. FY 2016 Accomplishments: N/A	FY 2018 Plans: Initiate systems engineering efforts for NDI integration onto an airworthiness-certified aircraft to achieve operational capability requirements, including associated mission planning and aircrew training systems. Includes government oversight of contractor design reviews toward finalizing changes from the airworthiness-certified baseline aircraft specifications. Other contractor and government systems engineering tasks include associated testing and certifications. Includes incremental funding of four developmental aircraft.			
FY 2016 Accomplishments: N/A	Title: UH-1N Replacement Test and Evaluation	0.000	0.200	0.277
N/A	Description: System and subsystem test and evaluation of the UH-1N Replacement solution.			
FY 2017 Plans:	FY 2016 Accomplishments: N/A			
	FY 2017 Plans:			

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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 7:

Operational Systems Development

R-1 Program Element (Number/Name)
PE 0102110F I UH-1N Replacement Program

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2016	FY 2017	FY 2018
Initiated Developmental Test, Operational Test, and Live Fire Test and Evaluation planning activities to support future test efforts.			
FY 2018 Plans: Continue test planning activities. Conduct technical reviews of the UH-1N Replacement contractor's NDI integration onto an airworthiness-certified baseline aircraft system; continue planning for government Developmental Test, Operational Test, and Live Fire Test and Evaluation; procure subsystem component test articles for LFT&E.			
Accomplishments/Planned Programs Subtotals	0.000	14.116	108.617

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

			FY 2018	FY 2018	FY 2018					Cost To	
<u>Line Item</u>	FY 2016	FY 2017	Base	OCO	<u>Total</u>	FY 2019	FY 2020	FY 2021	FY 2022	Complete	Total Cost
 APAF: BA04: Line Item 	2.456	18.337	0.000	0.000	0.000	0.000	347.431	373.337	467.203	2,768.798	3,975.562
#H0106O: UH-1N Replacement											
 APAF: BA05: Line Item 	0.000	0.000	0.000	0.000	0.000	0.000	0.291	1.777	4.236	0.00	0.000
#H0106O: UH-1N Replacement											
• APAF: BA06: Line Item #000999:	0.000	0.000	0.000	0.000	0.000	0.000	16.271	16.733	17.207	133.544	183.755
Initial Spares/Repair Parts											
 MILCON: PE 0207576F: 	19.700	0.000	61.900	0.000	61.900	58.600	0.000	0.000	0.000	0.00	136.600

Consolidated Helicopter Operations,

Tactical Response Force Alert,

and Aircraft Maintenance Facilities

Remarks

E. Acquisition Strategy

The Air Force intends to procure an airworthiness-certified baseline helicopter that requires NDI integration (e.g. forward looking infrared sensors, personnel recovery hoists, cockpit/cabin armor, etc.) to meet all operational capability requirements. Specific acquisition and contracting strategies for RDT&E funded integration tasks and the test and evaluation program will be determined as part of the overall program strategy. The Air Force intends to enter the acquisition process pre-Milestone C, and award a contract for this program no later than the end of 3Q/FY2018.

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 P	roject C	ost Analysis: FY 2	018 Air F	orce								Date:	May 201	7	
Appropriation/Budge 3600 / 7	t Activity	'					2110F <i>I U</i>		umber/Na placemen			(Number		nent Prog	ram
Product Developmen	ıt (\$ in Mi	illions)		FY 2	016	FY 2	2017	FY 2 Ba		FY 2		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	Total Cost	Target Value of Contract
UH-1N Replacement weapon system integration and type/airworthiness certification	C/TBD	TBD : TBD	-	0.000		13.916	Dec 2017	103.051	Jun 2018	0.000		103.051	Continuing	Continuing	-
		Subtotal	-	0.000		13.916		103.051		0.000		103.051	-	-	-
Support (\$ in Millions	s)			FY 2	016	FY 2	2017	FY 2 Ba		FY 2		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	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	_
Test and Evaluation ((\$ in Milli	ons)		FY 2	016	FY 2	2017	FY 2 Ba		FY 2		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	Total Cost	Target Value of Contrac
UH-1N Replacement live fire, qualification, and operational test and evaluation planning and technical support	Various	Various : TBD	-	0.000		0.200	Dec 2017	0.277	Dec 2018	0.000		0.277	Continuing	Continuing	-
		Subtotal	-	0.000		0.200		0.277		0.000		0.277	-	-	-
Management Service	s (\$ in M	illions)		FY 2	016	FY 2	2017	FY 2 Ba		FY 2		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	Total Cost	Target Value of Contrac
UH-1N Replacement program management activity	Various	Various : TBD	-	0.000		0.000	Jan 2017	5.289		0.000		5.289	Continuing	Continuing	_
		Subtotal	_	0.000		0.000		5.289		0.000		5.289		_	_

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2	2018 Air F	orce								Date:	May 2017	,	
Appropriation/Budget Activity 3600 / 7					2110F <i>l</i>	Element (I UH-1N R		,	_	t (Numbei I UH-1N	r/ Name) Replacem	ent Prog	gram
	Prior Years	FY 2	016	FY 2	017	1 1	′ 2018 Base	FY 2		FY 2018 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	-	0.000		14.116		108.61	7	0.000		108.617	-	-	-

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chibit R-4, RDT&E Schedule Profile: FY 2018 Appropriation/Budget Activity 00 / 7						F	PE (Prog 102 gram	110F <i>l</i>	leme UH-	ent (1N F	(Nu Rep	umbe place	mber/Name) Project (Number/Name) lacement 672021 / UH-1N Replacement Program										ram		
	F	Y 201	6		FY 2	2017			FY 201	8		FY	/ 201	9		FY	202	20		FY	7 202	1		FY	202	2
		2 3	_	1		3	4	1	2 3	_		_		_	1	_		_	. 1		2 3	_	1	2	2 3	4
Acquisition Strategy Panel		,		'					'								'		'				'			
Pre-Milestone C Review and Contract Award																										
Weapon System Integration																										
Purchase of 4 RDT&E Aircraft																										
AV CDR																										
AV FCA/PCA																										
TS CDR																										
TS FCA/PCA																										i
AWP																										
Test MFR																										
OP MTC																										
System/Subsystem Test and Integration																										
LFTE Planning																										
LFTE Execution																										
DT Planning																										
DT Execution																										
OT Planning																										
OT Execution																										
OA Planning																										
OA Execution																										

PE 0102110F: *UH-1N Replacement Program* Air Force

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force		Date: May 2017
Appropriation/Budget Activity 3600 / 7	- , (umber/Name) IH-1N Replacement Program

Schedule Details

	St	art	End				
Events	Quarter	Year	Quarter	Year			
Acquisition Strategy Panel	2	2017	2	2017			
Pre-Milestone C Review and Contract Award	3	2018	3	2018			
Weapon System Integration	3	2018	4	2022			
Purchase of 4 RDT&E Aircraft	3	2018	1	2020			
AV CDR	3	2019	3	2019			
AV FCA/PCA	2	2020	4	2020			
TS CDR	4	2020	4	2020			
TS FCA/PCA	1	2022	3	2022			
AWP	2	2018	4	2020			
Test MFR	4	2019	4	2019			
OP MTC	4	2020	4	2020			
System/Subsystem Test and Integration	2	2018	4	2021			
LFTE Planning	2	2018	3	2019			
LFTE Execution	4	2018	3	2021			
DT Planning	3	2018	4	2019			
DT Execution	1	2020	4	2020			
OT Planning	3	2018	4	2020			
OT Execution	4	2020	3	2021			
OA Planning	3	2018	2	2020			
OA Execution	2	2020	4	2020			

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