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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 0605278F / <i>HC/MC-130 Recap RDT&E</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	87.388	4.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	71.299	163.184
655249: <i>HC-130Recap</i>	87.388	4.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	71.299	163.184
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Program MDAP/MAIS Code: 257

A. Mission Description and Budget Item Justification

HC/MC-130 Recapitalization will replace and augment the aging USAF fleets of combat rescue HC-130P/N and special operations MC-130E/P aircraft which are experiencing airworthiness, maintainability and operational limitations. The HC/MC-130 Recap Capabilities Production Document (CPD) defines a common baseline configuration for the weapon system and a FY 2012 Initial Operational Capability. The Joint Requirements Oversight Council (JROC) validated the CPD in Aug 2009.

This program will develop and integrate changes from discrepancies found during Engineering Manufacturing Development (EMD) flight test, operational use, and common C-130J block upgrades during HC/MC production. The C-130J program (PE 0401132F) developed Blocks 7.0 and 8.1 separately but all other platforms (including HC/MC) will have combined Block 7.0/8.1 trial kit install and modification programs and will be known simply as Block 8.1.

The internationally developed Block 8.1 program addresses mandated Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements. It also incorporates capabilities such as Link 16, a new Flight Management System (FMS), Civil GPS Navigation, Identification Friend or FOE (IFF) transponder Mode-5, Civil Data-link, and Automatic Dependent Surveillance-Broadcast (ADS-B).

The HC/MC Block 8.1 RDT&E effort integrates Block 8.1 into a HC-130J and a MC-130J via a trial kit install effort followed by a Development and Operational test 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.

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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	4.497	0.000	0.000	0.000	0.000	
Current President's Budget	4.497	0.000	0.000	0.000	0.000	
Total Adjustments	0.000	0.000	0.000	0.000	0.000	
• 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	0.000	0.000	0.000	
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2015	FY 2016	FY 2017
Title: Test and Evaluation				0.600	0.000	-
Description: Test and evaluation planning, conduct, and support for developmental and operational testing.						
FY 2015 Accomplishments: Funded developmental and operational testing.						
FY 2016 Plans: Funding moved to BA 7						
Title: Continuous Improvement Program				1.297	0.000	-
Description: Software-only updated to address discrepancies identified during development or operational test and evaluation. These updates will be incorporated in both production and fielded aircraft.						
FY 2015 Accomplishments: System and software modifications added to the aircraft configuration as identified as deficiency reports by using command.						
FY 2016 Plans: Funding moved to BA 7						
Title: Block 8.1				2.600	0.000	-

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>Description: Combined software/hardware upgrade for Block 8.1. Additional efforts include: Link 16, a new Flight Management System (FMS), Civil Global Positioning System (GPS) Navigation, a Special Mission Processor Interface (SMP-I), Identification Friend or Foe (IFF) Mode 5, Civil Data Link, and Automatic Dependent Surveillance-Broadcast (ADS-B).</p> <p>FY 2015 Accomplishments: HC/MC-130J Block 8.1 development began taking advantage of the internationally developed C-130J Block 8.1 program.</p> <p>FY 2016 Plans: Funding moved to BA 7</p>			
Accomplishments/Planned Programs Subtotals	4.497	0.000	-

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</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>
• APAF: BA05: HCMC00: APAF HC/MC-130 Modifications	0.000	0.000	0.000	0.000	0.000	0.000	31.919	0.000	0.000	293.229	331.722
• APAF: BA02: C-130JH: BA02:APAF PE0207224F, HC-130J	382.024	474.434	337.576	0.000	337.576	198.153	0.000	0.000	0.000	398.587	1,790.774
• APAF: BA02: C-130JM: BA02: APAF PE0207230F, MC-130J	372.971	850.872	598.358	0.000	598.358	450.194	371.649	631.894	449.356	1,992.934	5,718.228

Remarks

E. Acquisition Strategy
 The full rate production decision for the HC/MC-130J RECAP was 4 Oct 13. Lockheed Martin is the prime contractor for the Research & Development work in support of the HC/MC-130J Recap program. Work done to date on the HC/MC-130 Recap program has been on a Cost Plus Award Fee (CPAF) type contract.

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 3600 / 5	R-1 Program Element (Number/Name) PE 0605278F / HC/MC-130 Recap RDT&E	Project (Number/Name) 655249 / HC-130Recap
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Product Development (\$ 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			
HC/MC-130 Recap EMD	SS/CPAF	Lockheed Martin : Marietta, GA	45.670	0.000		0.000		0.000		0.000		0.000	0.000	45.670	45.670
HC/MC-130 Recap Continuous Improvement Program (CIP)	SS/CPFF	Lockheed Martin : Marietta, GA	21.415	1.297	May 2015	0.000		0.000		0.000		0.000	8.167	30.879	30.879
HC/MC-130 Recap Block 8.1	SS/CPIF	Lockheed Martin : Marietta, GA	4.716	2.600	Sep 2015	0.000		0.000		0.000		0.000	54.976	62.292	62.292
Subtotal			71.801	3.897		0.000		0.000		0.000		0.000	63.143	138.841	138.841

Support (\$ 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			
HC/MC-130 Recap Other	Various	AFLCMC/WIS : WPAFB, OH	4.931	0.000		0.000		0.000		0.000		0.000	0.000	4.931	4.931
Subtotal			4.931	0.000		0.000		0.000		0.000		0.000	0.000	4.931	4.931

Test and Evaluation (\$ 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			
HC/MC-130 Recap Test and Evaluation Support	C/FFP	46th Test Wing : EAFB, FL	10.656	0.600	May 2015	0.000		0.000		0.000		0.000	8.156	19.412	19.412
Subtotal			10.656	0.600		0.000		0.000		0.000		0.000	8.156	19.412	19.412

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			
Subtotal			-	-		-		-		-		-	-	-	-

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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 0605278F / HC/MC-130 Recap RDT&E				655249 / HC-130Recap				
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	87.388	4.497	0.000	0.000	0.000	0.000	71.299	163.184	163.184

Remarks
 Beginning in FY16 all HC/MC RDT&E funding is in BA07

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

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605278F / HC/MC-130 Recap RDT&E	Project (Number/Name) 655249 / HC-130Recap
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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

Software Development Test and Evaluation																												
HC/MC-130 Recap Block 8.1 Development																												
HC/MC-130 Recap Block 8.1 First Article Installation and Developmental Test																												
Continuous Improvement Program (CIP)																												

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

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0605278F / HC/MC-130 Recap RDT&E	Project (Number/Name) 655249 / HC-130Recap
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Software Development Test and Evaluation	1	2015	4	2015
HC/MC-130 Recap Block 8.1 Development	4	2015	4	2016
HC/MC-130 Recap Block 8.1 First Article Installation and Developmental Test	4	2016	4	2018
Continuous Improvement Program (CIP)	1	2015	4	2019

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