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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 7: Operational Systems Development</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	0.000	0.000	10.807	13.987	0.000	13.987	27.513	8.626	4.851	4.937	0.000	70.721
675006: <i>HC/MC-130 Recap</i>	0.000	0.000	10.807	13.987	0.000	13.987	27.513	8.626	4.851	4.937	0.000	70.721
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/H aircraft which are experiencing airworthiness, maintainability and operational limitations.

This program will develop and integrate changes from discrepancies found during development and operational flight test, and common C-130J block upgrades during HC/MC production. The HC/MC Block 8.1 program follows the same "Block Upgrade" strategy being used in the C-130J program (PE 0401132F).

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 Out (ADS-B Out).

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.

The USAF is considering fielding the IFF Mode 5 and ADS-B Out portions of Block 8.1 ahead of the remaining 36 capabilities in order to comply with the 2020 mandates.

Block 8.1 Production line cut-in is planned with the FY 2019 aircraft buys. A fleet modification program will also begin in FY 2019.

The FY 2017 funding request was reduced by \$9.939 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	0.000	10.807	23.926	0.000	23.926
Current President's Budget	0.000	10.807	13.987	0.000	13.987
Total Adjustments	0.000	0.000	-9.939	0.000	-9.939
• 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	-9.939	0.000	-9.939

Change Summary Explanation

The FY 2017 funding request was reduced by \$9.939 million to account for availability of prior execution balances.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
Title: Test and Evaluation	0.000	0.764	2.905
Description: Test and evaluation planning, conduct, and support for developmental and operational testing.			
FY 2015 Accomplishments: N/A			
FY 2016 Plans: Funding will support developmental and operational testing.			
FY 2017 Plans: Funding will support developmental and operational testing including Block 8.1 DT&E.			
Title: Continuous Improvement Program (CIP)	0.000	0.916	2.231
Description: Software-only updates to address discrepancies identified during development or operational test and evaluation. These updates will be incorporated in both production and fielded aircraft. Includes operational flight program (OFP) updates			
FY 2015 Accomplishments: N/A			
FY 2016 Plans:			

UNCLASSIFIED

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
CIP software development will continue.			
FY 2017 Plans: CIP software development will continue and fielding will begin.			
Title: Block 8.1	0.000	9.127	8.851
Description: Combined software/hardware upgrade for Block 8.1. Block 8.1 includes: 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 Out (ADS-B-Out).			
FY 2015 Accomplishments: N/A			
FY 2016 Plans: Due to program interdependencies, HC/MC Block 8.1 program begins in FY16 with the ordering of long lead parts. A Block 8.1 trial kit installation (TKI) will be accomplished on one HC-130J (Increment 2) and one MC-130J (Increment 3) aircraft.			
FY 2017 Plans: The HC-130J and MC-130J Block 8.1 TKI development and integration effort continues and includes installation of the kits on the aircraft.			
Accomplishments/Planned Programs Subtotals	0.000	10.807	13.987

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: BA05: HCMC00: <i>APAF, HC/MC-130 Modifications</i>	0.000	0.000	0.000	0.000	0.000	0.000	31.919	3.253	3.321	293.229	331.722
• APAF: BA02: C-130JH: <i>APAF, PE 0207224F, HC-130J</i>	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: <i>APAF, PE 0207230F, MC-130J</i>	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

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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 Research and Development work in support of the HC/MC-130J RECAP program. Work done to date on the HC/MC-130J RECAP program has been on Cost Plus Award Fee (CPAF) and Cost Plus Incentive Fee (CPIF) type contracts.		
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 / 7	R-1 Program Element (Number/Name) PE 0605278F / HC/MC-130 Recap RDT&E	Project (Number/Name) 675006 / HC/MC-130 Recap
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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 Continuous Improvement Program (CIP)	SS/CPIF	Lockheed Martin : Marietta, GA	0.000	0.000		0.916	May 2016	2.231	May 2017	0.000		2.231	5.020	8.167	8.167
HC/MC-130 Recap Block 8.1	SS/CPIF	Lockheed Martin : Marietta, GA	0.000	0.000		9.127	Aug 2016	8.851	Dec 2016	0.000		8.851	36.420	54.398	54.398
Subtotal			0.000	0.000		10.043		11.082		0.000		11.082	41.440	62.565	62.565

Remarks
HC/MC-130 Recap RDT&E switched from BA05 to BA07 in FY16. The FY15 and prior Product Development totaled \$75.698M.

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			
Subtotal			-	-		-		-		-		-	-	-	-

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	RO	46th Test Wing : EAFB, FL	0.000	0.000		0.764	May 2016	2.905	May 2017	0.000		2.905	4.487	8.156	8.156
Subtotal			0.000	0.000		0.764		2.905		0.000		2.905	4.487	8.156	8.156

Remarks
HC/MC-130 Recap RDT&E switched from BA05 to BA07 in FY16. The FY15 and prior Test and Evaluation total was \$11.256M.

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			-	-		-		-		-		-	-	-	-

UNCLASSIFIED

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	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	0.000	0.000	10.807	13.987	0.000	13.987	45.927	70.721	70.721

Remarks
 HC/MC-130 Recap RDT&E switched from BA05 to BA07 in FY16. The FY15 and prior RDT&E total was \$91.885M.

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

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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

Development Test and Evaluation																												
HC/MC-130 RECAP Block 8.1 Development																												
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 / 7	R-1 Program Element (Number/Name) PE 0605278F / HC/MC-130 Recap RDT&E	Project (Number/Name) 675006 / HC/MC-130 Recap
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development Test and Evaluation	1	2015	4	2021
HC/MC-130 RECAP Block 8.1 Development	4	2016	2	2019
Continuous Improvement Program (CIP)	1	2015	4	2021