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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0401115F I C-130 Airlift Squadron							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	1,478.420	14.929	47.700	-	-	-	12.378	19.468	19.832	23.947	Continuing	Continuing
674885: Avionics Modernization Program (AMP)	1,478.420	10.000	47.300	-	-	-	-	-	-	-	-	1,535.720
675244: C-130 CNS/ATM	0.000	4.929	0.400	-	-	-	12.378	19.468	19.832	23.947	Continuing	Continuing
MDAP/MAIS Code: 298												

# The FY 2015 OCO Request will be submitted at a later date.

**A. Mission Description and Budget Item Justification**

C-130 Avionics Modernization Program (AMP) RDT&E funding has been deleted as a result of proposed program cancellation in the FY13 PB. However, Congress added \$10M RDT&E in FY13 and \$47.3M RDT&E in FY14 to continue C-130 AMP.

The "Optimize" Legacy C-130 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) program was a new start in FY13 in-lieu-of C-130 AMP, and provided CNS/ATM solution for 176 C-130H aircraft, addressed select obsolescence issues, and retined the navigator position.

The "Minimize" C-130 CNS/ATM program replaced the "Optimize" program in FY 14, and is an airspace compliance focused program to modify 184 C-130H aircraft with 8.33 kHz radios, cockpit voice and digital flight data recorders, Enhanced Mode S, and Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development 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.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>	<b>FY 2015 OCO</b>	<b>FY 2015 Total</b>
Previous President's Budget	5.000	0.400	66.100	-	66.100
Current President's Budget	14.929	47.700	-	-	-
Total Adjustments	9.929	47.300	-66.100	-	-66.100
• Congressional General Reductions	-0.020	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	10.000	47.300			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.051	-			
• Other Adjustments	-	-	-66.100	-	-66.100

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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 0401115F I C-130 Airlift Squadron	

<p><b><u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u></b></p> <p><b>Project:</b> 674885: <i>Avionics Modernization Program (AMP)</i></p> <p style="padding-left: 40px;">Congressional Add: <i>System Development and Demonstration (SDD)</i></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="padding: 5px;">FY 2013</th> <th style="padding: 5px;">FY 2014</th> </tr> <tr> <td style="padding: 5px;">10.000</td> <td style="padding: 5px;">47.300</td> </tr> <tr> <td style="padding: 5px;">10.000</td> <td style="padding: 5px;">47.300</td> </tr> <tr> <td style="padding: 5px;">10.000</td> <td style="padding: 5px;">47.300</td> </tr> </table>	FY 2013	FY 2014	10.000	47.300	10.000	47.300	10.000	47.300
FY 2013	FY 2014								
10.000	47.300								
10.000	47.300								
10.000	47.300								
Congressional Add Subtotals for Project: 674885									
Congressional Add Totals for all Projects									

**Change Summary Explanation**

FY15: the ADS-B Out and Enhanced mode S portions of the "Minimize" program is slipped 2 years to the right and now modifies 178 aircraft (vs. 184 aircraft) due to higher Air Force priorities.

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron				Project (Number/Name) 674885 / Avionics Modernization Program (AMP)			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
674885: Avionics Modernization Program (AMP)	1,478.420	10.000	47.300	-	-	-	-	-	-	-	-	1,535.720
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
The FY13 PB submission cancelled C-130 AMP; However, Congress added \$10M RDT&E in FY13 and \$47.3M RDT&E in FY14 to continue C-130 AMP.												
A. Mission Description and Budget Item Justification												
The 2013 National Defense Authorization Act (NDAA) required an Institute for Defense Analyses (IDA) cost/benefit analysis (CBA) of the C-130 Avionics Modernization Program (AMP) and a reduced scope mod program; it also prevents the Air Force from cancelling C-130 AMP until 90 days after the study is delivered to Congress. The Air Force delivered the study to Congress in Nov 2013. However, the FY14 NDAA directed the GAO to conduct a sufficiency review of the IDA study by 1 April 2014, and prevents the AF from canceling C-130 AMP.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2013	FY 2014			
Congressional Add: System Development and Demonstration (SDD)								10.000	47.300			
FY 2013 Accomplishments: Accomplished design activities for software spirals and remaining engineering data release for the H2, H2.5 and H3 configurations. Contractor also provided flight test support. To achieve the overall C-130 AMP development efforts, the following RDT&E tasks were also required: Training Systems Development (aircrew and maintenance systems), Engineering Change Orders (ECO), Development of new hardware and software resulting from Diminishing Manufacturing Sources (DMS) issues, Government furnished Equipment (GFE), the contractor Award Fee and program support and planning efforts.												
FY 2014 Plans: Accomplished design activities for software spirals and remaining engineering data release for the H2, H2.5 and H3 configurations. Contractor also provided flight test support. To achieve the overall C-130 AMP development efforts, the following RDT&E tasks were also required: Training Systems Development (aircrew and maintenance systems), Engineering Change Orders (ECO), Development of new hardware and software resulting from Diminishing Manufacturing Sources (DMS) issues, Government furnished Equipment (GFE), the contractor Award Fee and program support and planning efforts.												
Congressional Adds Subtotals								10.000	47.300			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Air Force			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0401115F / C-130 Airlift Squadron	<b>Project (Number/Name)</b> 674885 / Avionics Modernization Program (AMP)	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: BA05: Line Item # C1300A: C-130 AMP	9.987	-	-	-	-	-	-	-	-	-	10.000

**Remarks**

**D. Acquisition Strategy**

N/A

**E. 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 2015 Air Force												Date: March 2014			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron				Project (Number/Name) 674885 / Avionics Modernization Program (AMP)					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
C-130 AMP System Design & Development	SS/CPAF	Boeing : Oklahoma City, OK	1,291.219	-		-		-		-		-	-	1,291.219	-
Planning Activities	TBD	TBD :	4.517	10.000		47.300		-		-		-	-	61.817	-
Subtotal			1,295.736	10.000		47.300		-		-		-	-	1,353.036	-
Remarks															
Note: Pending outcome of GAO sufficiency review of the IDA study FY13 and FY14 funds are reserved for planning activities including the development and implementation of a program continuation or cancellation plan.															
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Various	Various	Various : Rosamond, CA	107.799	-		-		-		-		-	-	107.799	-
Subtotal			107.799	-		-		-		-		-	-	107.799	-
Remarks															
DT&E flight test program is primarily done out of Edwards AFB.															
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
PMA - Contractor Services	Various	Various : Dayton, OH	43.719	-		-		-		-		-	-	43.719	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2015 Air Force												<b>Date:</b> March 2014			
<b>Appropriation/Budget Activity</b> 3600 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0401115F / C-130 Airlift Squadron				<b>Project (Number/Name)</b> 674885 / Avionics Modernization Program (AMP)					

<b>Management Services (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>					
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
PMA - Gov't Cost	Various	Various : Dayton, OH	27.809	-		-		-		-		-		-	-	27.809	-
Protest Settlement	SS/FFP	Lockheed Martin : Marietta, GA	3.357	-		-		-		-		-		-	-	3.357	-
<b>Subtotal</b>			74.885	-		-		-		-		-		-	-	74.885	-

**Remarks**  
Protest Settlement cost category is FY11 funding reimbursement to Lockheed Martin for proposal preparation and submission materials for disputed C-130 AMP source selection.

	<b>Prior Years</b>	<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	1,478.420	10.000		47.300		-		-		-	-	1,535.720	-

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron	Project (Number/Name) 674885 / Avionics Modernization Program (AMP)
<p>Program on hold pending disposition of results of IDA study, therefore no schedule is attached. Remaining funding to be used in contract termination and planning activities if necessary.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0401115F / C-130 Airlift Squadron				Project (Number/Name) 675244 / C-130 CNS/ATM			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
675244: C-130 CNS/ATM	-	4.929	0.400	-	-	-	12.378	19.468	19.832	23.947	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
With the FY13 PB's cancellation of the C-130 Avionics Modernization Program (AMP), the Minimize C-130 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) option provides minimal airspace compliance focused program to modify 178 C-130H aircraft with Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment, 8.33 kHz radios, updated cockpit voice and digital flight data recorders, and Enhanced Mode S.												
The 178 aircraft Minimize C-130 CNS/ATM program is comprised of H3s, H2.5s, H2s and H1s; and includes 28 Active Duty, 102 Guard, and 48 Reserve aircraft. The modification effort will be completed in three phases: Phase A updates to 8.33 kHz radios on 150 aircraft (28 modifications previously accomplished on the H1s); Phase B modifies cockpit voice and digital data recorders (CVR/DVR) for 178 aircraft; Phase C relates to ADS-B Out and Enhanced Mode S modifications. Phase C will have 4 prototype aircraft required for accomplishment of the ADS-B Out Engineering and Manufacturing Development (EMD) phase, with the remaining 174 being production aircraft. The prototype aircraft represent each type of C-130H configuration listed above.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: Minimize C-130 CNS/ATM Program									4.929	0.400	-	
Description: Refine and complete the requirements definition phase of program in fiscal year 2013, followed by integration planning.												
FY 2013 Accomplishments: Accomplish requirements definition and integration planning.												
FY 2014 Plans: Accomplish requirements definition and integration activities.												
FY 2015 Plans: Activities deferred to FY16 pending Congressional direction on C-130 AMP.												
Accomplishments/Planned Programs Subtotals									4.929	0.400	-	



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Air Force							<b>Date:</b> March 2014	
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0401115F / C-130 Airlift Squadron			<b>Project (Number/Name)</b> 675244 / C-130 CNS/ATM	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: BA05: Line Item # C13000: C-130	-	14.200	14.598	-	14.598	14.654	15.088	17.133	17.009	232.218	324.900

**Remarks**

**D. Acquisition Strategy**

1. Phases A&B: FY14 and FY15 involved with requirements, refinement, and integration activities. Current schedule is for MSC in 2nd Quarter FY14 followed by production contract award. Kits and installs FY14 through FY19.
2. ADS-B Out: Fiscal year 2014 and early fiscal year 2015 primarily involved with defining the program requirements and pre-contract efforts in preparation for the EMD source selection phase of the program. Current schedule is for the ADS-B Out EMD contract to be awarded, following a competitive source selection, in the 3rd quarter of fiscal year 2017.

**E. 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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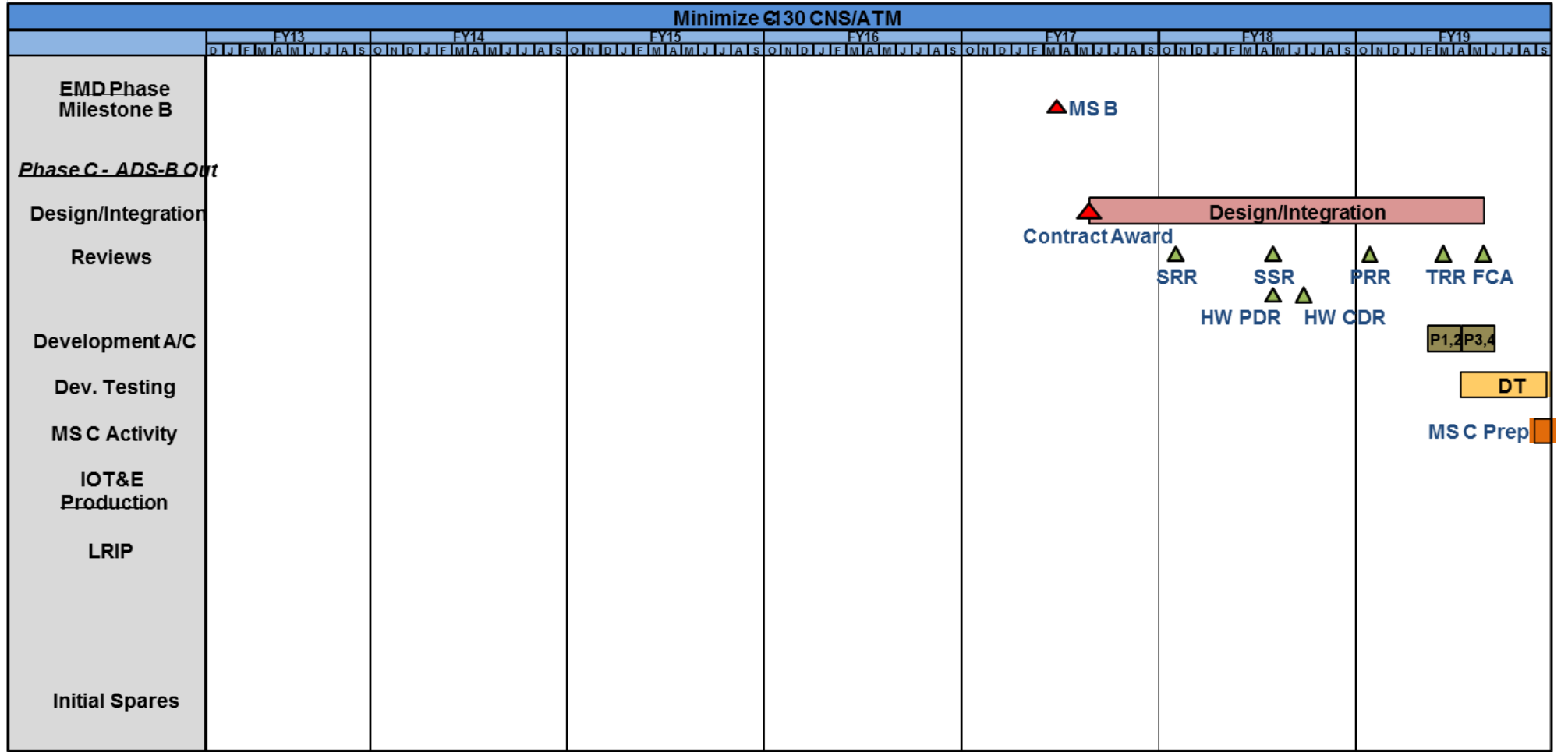
Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

Date: March 2014

Appropriation/Budget Activity  
3600 / 7

R-1 Program Element (Number/Name)  
PE 0401115F / C-130 Airlift Squadron

Project (Number/Name)  
675244 / C-130 CNS/ATM



Last Updated: 6 Nov 13