

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0401132F C-130J PROGRAM</b>
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	11.401	40.389	74.223	52.790	42.606	60.455	60.480	58.896	Continuing	TBD
5061 C-130J	11.401	40.389	74.223	52.790	42.606	60.455	60.480	58.896	Continuing	TBD

**(U) A. Mission Description and Budget Item Justification**

FY08 C-130J program RDT&E funding provides for:

- 1.) Participation in the International Co-operative Systems and Software Upgrade Requirements Management (COSSURM). COSSURM participants include the United Kingdom, Australia, Italy, Denmark, and the United States. COSSURM provides a mechanism to jointly identify, collect, define, analyze, and price requirements. By combining requirements and resources under COSSURM, each participating country will save in aircraft upgrade costs.
- 2.) Continuation of Block 7.0 Upgrades. Block 7.0 is the second phase of at least four block upgrades which primarily address mandated Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements. Block 7.0 is the first Block Upgrade initiative that is a true International partnership, as the development costs will be shared by each participating nation. Block 7.0 requirements include:
  - a.) Communication, Navigation & Identification (CNI) upgrades
  - b.) Dual Multi-Mode Receivers (MMR) with TSO C-129A Civil Global Positioning System (GPS)
  - c.) CNI Special Processor upgrade
  - d.) Tactical Datalink (TDL)
  - e.) Mission Computer (MC) upgrades
- 3.) AMC Requirements and Planning Council (R&PC) activities. AMC has prioritized requirements that do not fall within the International Block Upgrade program, which primarily addresses deficiencies and system improvements. This includes Navigation Safety upgrades, Formation Positioning System (FPS), Large Aircraft Infrared Counter Measures (LAIRCM), and Sensor Cant, among other priorities.

FY09 C-130J program RDT&E funding provides for:

- 1.) Continued participation in COSSURM.
- 2.) Continuation and testing of Block 7.0 Upgrades
- 3.) Continuation of R&PC activities
- 4.) Start of Block 8.0 Upgrades

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (Short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J) and weather reconnaissance (WC-130J). These aircraft must be capable of worldwide operations.

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0401132F C-130J PROGRAM

This effort is assigned to Budget Activity 7, as it supports an operational system.

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	11.496	40.542	45.430	40.605
(U) Current PBR/President's Budget	11.401	40.389	74.223	52.790
(U) Total Adjustments	-0.095			
(U) Congressional Program Reductions				
Congressional Rescissions	-0.095	-0.153		
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer				

(U) **Significant Program Changes:**

Increase in current FY08 & FY09 funding is for development activities to address AMC prioritized requirements that are not contained in the International Block Upgrade program. For FY08 & FY09, these development activities include Navigation Safety upgrades, Formation Positioning System (FPS), Large Aircraft Infrared Counter Measures (LAIRCM), and Sensor Cant, among other priorities associated with planned C-130J aircraft modifications.

## Exhibit R-2a, RDT&amp;E Project Justification

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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE		
<b>07 Operational System Development</b>				<b>0401132F C-130J PROGRAM</b>				<b>5061 C-130J</b>		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
5061 C-130J	11.401	40.389	74.223	52.790	42.606	60.455	60.480	58.896	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

FY08 C-130J program RDT&E funding provides for:

1.) Participation in the International Co-operative Systems and Software Upgrade Requirements Management (COSSURM). COSSURM participants include the United Kingdom, Australia, Italy, Denmark, and the United States. COSSURM provides a mechanism to jointly identify, collect, define, analyze, and price requirements. By combining requirements and resources under COSSURM, each participating country will save in aircraft upgrade costs.

2.) Continuation of Block 7.0 Upgrades. Block 7.0 is the second phase of at least four block upgrades which primarily address mandated Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements. Block 7.0 is the first Block Upgrade initiative that is a true International partnership, as the development costs will be shared by each participating nation. Block 7.0 requirements include:

- a.) Communication, Navigation & Identification (CNI) upgrades
- b.) Dual Multi-Mode Receivers (MMR) with TSO C-129A Civil Global Positioning System (GPS)
- c.) CNI Special Processor upgrade
- d.) Tactical Datalink (TDL)
- e.) Mission Computer (MC) upgrades

3.) AMC Requirements and Planning Council (R&PC) activities. AMC has prioritized requirements that do not fall within the International Block Upgrade program, which primarily addresses deficiencies and system improvements. This includes Navigation Safety upgrades, Formation Positioning System (FPS), Large Aircraft Infrared Counter Measures (LAIRCM), and Sensor Cant, among other priorities.

FY09 C-130J program RDT&E funding provides for:

- 1.) Continued participation in COSSURM.
- 2.) Continuation and testing of Block 7.0 Upgrades
- 3.) Continuation of R&PC activities
- 4.) Start of Block 8.0 Upgrades

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (Short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J) and weather reconnaissance (WC-130J). These aircraft must be capable of worldwide operations.

This effort is assigned to Budget Activity 7, as it supports an operational system.

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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0401132F C-130J PROGRAM</b>	<b>PROJECT NUMBER AND TITLE</b> <b>5061 C-130J</b>
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<b>(U) B. Accomplishments/Planned Program (\$ in Millions)</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) COSSURM payment	0.822	1.759	1.770	1.900
(U) Congressional Rescissions	0.095	0.153		
(U) Reprogrammings				
(U) SBIR/STTR Transfer				
(U) Continue Block 6.0 non-recurring engineering design and software development. Conduct laboratory testing of CNS/ATM / nav safety hardware and software modifications. Procure and install hardware on flight test aircraft and one C-130J weapon system trainer.	10.077	20.474		
(U) Flight Test	0.407	1.000	1.500	1.500
(U) Initiate non-recurring engineering design and software development for Block 7.0 CNS/ATM / nav safety requirements and aircraft deficiencies/product improvements.		12.107		
(U) Continue Block 7.0 non-recurring engineering design and software development. Conduct laboratory testing of CNS/ATM / nav safety hardware and software modifications. Procure and install hardware on flight test aircraft and one C-130J weapon system trainer.			25.002	17.984
(U) Initiate non-recurring engineering design and software development for Block 8.0 CNS/ATM / nav safety requirements and aircraft deficiencies / product improvements.				12.780
(U) Requirements and Planning Council (R&PC) activities		1.159	41.981	14.566
(U) International Program Office (IPO) Support (A&AS, Travel, Supplies)		3.737	3.970	4.060
(U) Total Cost	11.401	40.389	74.223	52.790

<b>(U) C. Other Program Funding Summary (\$ in Millions)</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) PE 0401132F, C-130J Procurement (BP1100)										
(U) Mod MN-_1701 Blk 6.0		16.070	21.870	1.520					0.000	39.460
(U) Mod MN-_1411 MWS			1.681	2.400	0.519				0.000	4.600
(U) Mod MN-_2612 Av Sys			10.110	17.040	6.896				0.000	34.046
(U) Mod MN-_6298 Blk 7.0				35.650	46.512	21.650	5.166		0.000	108.978
(U) Mod MN-_8629 LAIRCM					39.640	15.200	8.700	8.873		TBD
(U) Mod MN-_5448 FPS					18.190	20.308	17.393	7.618	0.000	63.509
(U) Mod MN-_5222 Blk 8.0						36.207	70.997	10.128	0.000	117.332
(U) Mod MC-_1151 Blk 9.0								88.950		TBD

## Exhibit R-2a, RDT&amp;E Project Justification

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(U) **D. Acquisition Strategy**

C-130J aircraft will be modified using a 'block upgrade' strategy. The full CNS/ATM / nav safety requirement will be met in four block upgrades: Block 6.0, which began with FY03 RDT&E funding and continues through FY07 RDT&E funding, Block 7.0, which will start in FY07, Block 8.0, which will start in FY09, and Block 9.0, which will start in FY11. The proportion of CNS/ATM / nav safety requirements allocated to Blocks 6.0 through 9.0 was determined via a design trade study conducted by Lockheed Martin (the C-130J prime contractor) and verified by the C-130J system program office and AMC. The development costs are being shared via a Global Project arrangement by the United States, the United Kingdom, Italy, Australia, and Denmark. An international program office, with USAF lead (Wright Patterson AFB, OH) manages the block upgrade development effort. Embodiment of a Block on the aircraft is the responsibility of each nation.

Lockheed Martin will be the prime contractor for these efforts, perform the non-recurring engineering and, following the successful conclusion of flight testing and certification of each block upgrade, will provide production retrofit kits on USAF C-130J aircraft. Installation will be performed by contractor, depot, and Air Force personnel.

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**Exhibit R-3, RDT&E Project Cost Analysis**

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(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u> Aeronautical Systems Center (AFMC), WPAFB, OH	CPEF	Lockheed Martin Aeronautics, Marietta GA		10.172	Jan-06	33.893	Oct-06	66.983	Oct-07	45.330	Oct-08		156.378		
Subtotal Product Development			0.000	10.172		33.893		66.983		45.330		0.000	156.378	0.000	
Remarks:															
(U) <u>Support</u> IPO Support	N/A					3.737	Jan-07	3.970	Oct-07	4.060			11.767		
Subtotal Support			0.000	0.000		3.737		3.970		4.060		0.000	11.767	0.000	
Remarks:		A&AS, Travel, Supplies - all vary on support needed													
(U) <u>Test &amp; Evaluation</u> Air Force Materiel Command (DT&E)				0.407	Jan-06	1.000	Oct-06	1.500	Oct-07	1.500	Oct-08		4.407		
Subtotal Test & Evaluation			0.000	0.407		1.000		1.500		1.500		0.000	4.407	0.000	
Remarks:															
(U) <u>Management</u> COSSURM				0.822	Jan-06	1.759	Oct-06	1.770	Oct-07	1.900	Oct-08		6.251		
Subtotal Management			0.000	0.822		1.759		1.770		1.900		0.000	6.251	0.000	
Remarks:															
(U) <u>Lockheed Martin Aeronautics, Marietta, GA</u>															
(U) Total Cost			0.000	11.401		40.389		74.223		52.790		0.000	178.803	0.000	
Remarks:															

Exhibit R-4, RDT&E Schedule Profile

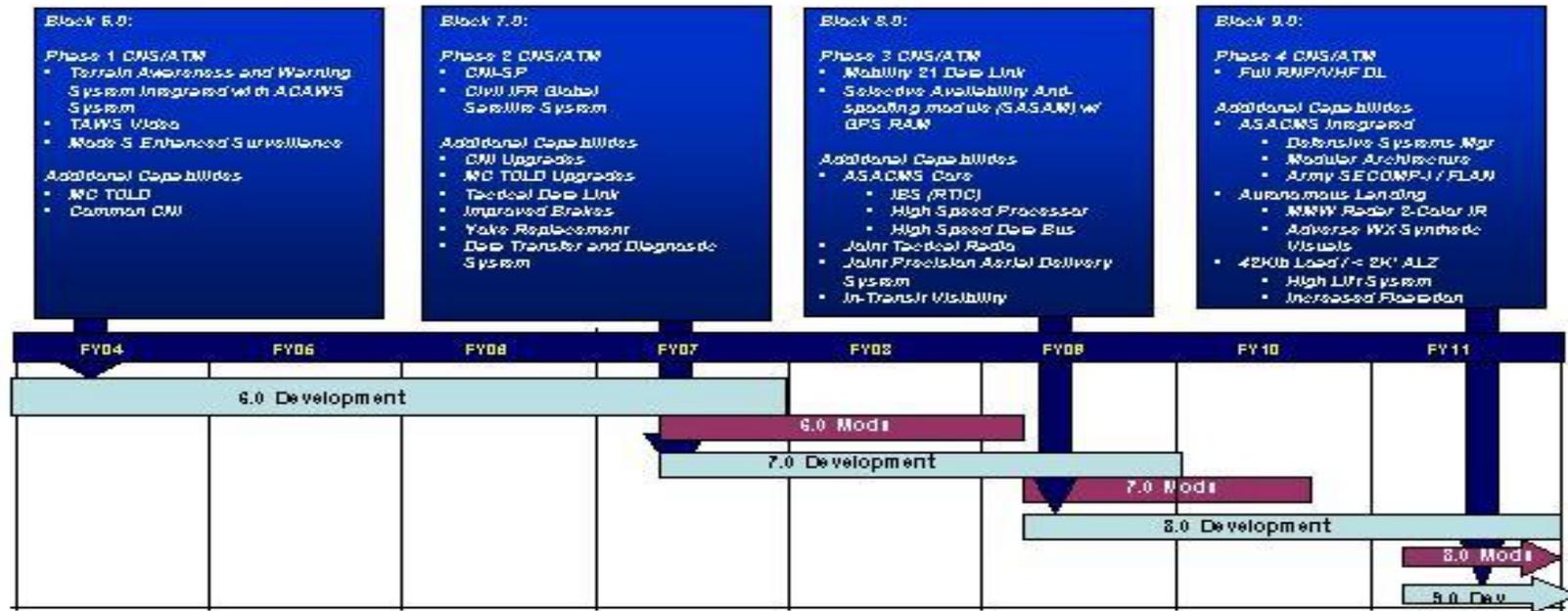
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# C-130J Strategic Block Upgrade Plan



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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2007</b>
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <b>Schedule Profile</b>				
(U) Block 6.0 FY06 award	1Q			
(U) Block 6.0 DT&E payment to AFFTC	1Q			
(U) Start of Block 6.0 DT&E	4Q			
(U) Block 6.0 FY07 award		1Q		
(U) Block 7.0 FY07 contract award		2Q		
(U) Block 7.0 FY08 award			1Q	
(U) Block 7.0 FY09 award				1Q
(U) Start of Block 7.0 DT&E				1Q
(U) Block 8.0 FY09 contract award				1Q