

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
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APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160425BB Special Operations Aircraft Defensive Systems / Project 3284
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COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160425BB	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601	Cont.	Cont.
3284, Special Operations Aircraft Defensive Systems	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element provides for the definition, development, prototyping and testing of aircraft defensive avionics systems. It includes the identification and development of hardware and software enhancements for each Special Operations Forces (SOF) aircraft to reduce detection, vulnerability, and threat engagement from threat radars and Infrared (IR) missiles, thereby increasing the overall survivability of SOF assets. This program element funds dispenser upgrade and improvement programs, threat and missile warning receiver enhancements, radio frequency jammer improvements, and enhanced IR jamming systems. It also provides systems for SOF-unique portions of the Electronic Warfare Avionics Integrated Systems Facility.

B. Program Change Summary:

	<u>FY2006</u>	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>
Previous President's Budget	26.934	7.850	6.836	4.235
Current President's Budget	20.765	4.726	5.195	5.272
Total Adjustments	-6.169	-3.124	-1.641	1.037
Congressional Program Reductions		-3.018		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-5.562			
Other Program Adjustments			-1.641	1.037
SBIR Transfer	-0.607	-0.106		

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<p>Funding:</p> <p>FY06: Decrease of \$6.169 million is due to a DD 1415-1 Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress to support a critical O&amp;M GWOT shortfall (-\$2.650 million), reprogramming to higher command priorities (-\$2.912 million), and transfer to the Small Business Innovative Research (SBIR) account (-\$0.607 million).</p> <p>FY07: Decrease of \$3.124 million is a result of a Congressional reduction to the Low Band Jammer modification (-\$3.000 million), SBIR transfer (-\$0.106 million), and Section 8106 reduction (-\$0.018 million).</p> <p>FY08: Funds were realigned to support higher command priorities (-\$1.641 million).</p> <p>FY09: Increase funds technology insertions for the Directional Infrared Countermeasures modification (\$1.037 million).</p> <p>Schedule: None.</p> <p>Technical: None.</p>		

Exhibit R-2a, RDT&E Project Justification		Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Aircraft Defensive System/Project 3284	

Cost (\$ in million)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Aircraft Defense System	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides definition, development, prototyping and testing of aircraft defensive avionics systems. Project identifies hardware and software enhancements for each Special Operations Forces (SOF) aircraft that will reduce detection, vulnerability, and threat engagement from threat radars and Infrared (IR) missiles, thereby increasing the overall survivability of SOF assets. This project identifies and develops enhancements to each platform to meet the projected threat.

Recommendations for equipment modification or replacement will be developed by each system program manager based upon the results of ongoing engineering assessments and user operational requirements. This project funds dispenser upgrade and improvement programs, threat and missile warning receiver enhancements, radio frequency jammer improvements, and enhanced IR jamming systems. Project also provides systems for SOF-unique portions of the Warner Robins-Air Logistics Center Electronic Warfare Avionics Integrated Systems Facility (EWAISF). Sub-projects include:

- Directional Infrared Countermeasures (DIRCM). The baseline program was a joint international cooperative United Kingdom/United States (UK/US) project to develop and procure an IR jammer for MC-130E/H and AC-130H/U aircraft capable of countering missile threats in the band one, two and four IR frequency spectrum. The program continues to support technology insertion to revise jam codes to address emerging threats.
- Next Generation Missile Warning System (NexGen MWS). Increment 3 in the spiral development of the AAQ-24 DIRCM System. Cooperative development program with Air Force to significantly extend DIRCM threat engagement range. Funds support two contracts through completion of System Design and Development (SDD) phase.
- EWAISF. The EWAISF directly supports software development and testing for EW systems. The EWAISF effort is a type of systems integration laboratory designed to support the incorporation of SOF aircraft defensive systems modifications into specific SOF platforms.
- Low Band Jammer (LBJ). Program funds the integration of the ALQ-196 LBJ modification. The LBJ will improve the capability of the ALQ-172 radio frequency jammer by adding low band jamming coverage for MC-130H Combat Talon II aircraft and AC-130U Gunships. The Command decided to terminate this effort for MC-130H and AC-130U in FY06 due to higher Command priorities.

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B. Accomplishments/Planned Program				
Cost (\$ in million)	FY06	FY07	FY08	FY09
DIRCM	2.329	1.806	3.100	3.131
DIRCM NexGen MWS	8.500			
RDT&E Articles Quantity				
<p>FY06 Continued to support a cooperative UK/US development/production program for 57 SOF C-130 aircraft, contractor engineering support, and nonrecurring engineering costs. Completed development of a NexGen MWS as P3I for DIRCM.</p> <p>FY07 Continue to support a cooperative UK/US development/production program for 57 SOF C-130 aircraft, contractor engineering support, and nonrecurring engineering costs for SOCOM unique lamp based hardware.</p> <p>FY08 Continues to support 57 SOF C-130 DIRCM modified aircraft and technology insertion to develop advanced jam codes to counter emerging threats and other software updates.</p> <p>FY09 Continues to support 57 SOF C-130 DIRCM modified aircraft and technology insertion to develop advanced jam codes to counter emerging threats and other software updates.</p>				
Cost (\$ in million)	FY06	FY07	FY08	FY09
EWASIF	1.900	1.916	2.095	2.141
RDT&E Articles Quantity				
<p>FY06 Continued to support laboratory efforts to maintain SOF aircraft defensive systems.</p> <p>FY07 Continue to support laboratory efforts to maintain SOF aircraft defensive systems.</p> <p>FY08 Continues to support laboratory efforts to maintain SOF aircraft defensive systems.</p> <p>FY09 Continues to support laboratory efforts to maintain SOF aircraft defensive systems.</p>				
Cost (\$ in million)	FY06	FY07	FY08	FY09
LBJ	8.036	1.004		
RDT&E Articles Quantity				
<p>FY06 Continued nonrecurring engineering for MC-130E.</p> <p>FY07 Complete nonrecurring engineering for MC-130E.</p>				

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C. Other Program Funding Summary:	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>	To Complete	Total Cost
C-130 Mods (PROC)										
DIRCM	6.810									220.923

D. Acquisition Strategy:

- DIRCM. The memorandum of agreement between the UK/US established the cooperative international baseline DIRCM program. The UK Ministry of Defense is the lead for the program. UK law applies to all baseline acquisition actions. USSOCOM program manager is the US Deputy to the UK DIRCM program manager. Follow on software development is sole source to the original equipment manufacture, Northrop Grumman.
- NexGen MWS. Competitively award a contract to two contractors for the SDD phase of the program. A separate contract will be competitively awarded for the production phase.
- EWAISF. Award sole source contracts to the manufacturer of the prime mission equipment required for hardware and software integration into the EWAISF. Capability improvements are on-going system changes.

APPROPRIATION / BUDGET ACTIVITY Special Operations Tactical Systems Development/PE1160425BB  
 RDT&E DEFENSE-WIDE / 7 Special Operations Forces Aircraft Defensive System/3284

Actual or Budget Value (\$ in millions)

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
Directional Infrared											
Countermeasures (DIRCM)	SS/FFP	Northrop, Chicago, IL	101.684								101.684
Tech Integration DIRCM	SS/CPFF	Northrop, Chicago, IL	14.853	1.091	Various	2.478	Various	2.488	Various	Cont.	Cont.
NexGen MWS	CPIF	Northrop, Chicago, IL/Lockheed Martin, Orlando, FL	44.332								44.332
Electronics Warfare Avionics											
Integrated Systems Facility	SS/CPFF	Various	20.678	1.916	Various	2.095	Various	2.141	Various	Cont.	Cont.
HPFOTD	CPAF	Boeing, Ft. Walton Beach, FL	109.931								109.931
Low Band Jammer	CPAF	Boeing, Ft. Walton Beach, FL	61.943	1.004	Jan-07						62.947
Subtotal Product Dev			353.421	4.011		4.573		4.629		Cont.	Cont.
Remarks:											
Development Spt											
Subtotal Spt											
Remarks:											
Developmental Test & Eval											
Subtotal T&E											
Remarks:											
Contractor Engineering Spt											
DIRCM	FP	Sverdrup, Tampa, FL	6.098	0.715	Dec-06	0.622	Dec-07	0.643	Dec-08	Cont.	Cont.
Subtotal Contract Engineering Spt			6.098	0.715		0.622		0.643		Cont.	Cont.
Remarks:											
Total Cost			359.519	4.726		5.195		5.272		Cont.	Cont.
Remarks:											



