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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 United States Special Operations Command **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 1160488BB: <i>SOF PSYOP/D476</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	8.251	9.846	4.193	0.000	4.193	2.990	0.000	0.000	0.000	Continuing	Continuing
D476: <i>SOF PSYOPS</i>	8.251	9.846	4.193	0.000	4.193	2.990	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The SOF PSYOP program element provides for the development, test and integration of Psychological Operations (PSYOP) equipment. PSYOP are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This program element funds transformational systems and equipment to conduct PSYOP in support of combatant commanders.

B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	15.124	9.887	0.000	0.000	0.000
Current President's Budget	8.251	9.846	4.193	0.000	4.193
Total Adjustments	-6.873	-0.041	4.193	0.000	4.193
• Congressional General Reductions		-0.041			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-6.298	0.000			
• SBIR/STTR Transfer	-0.575	0.000			
• Other Adjustments	0.000	0.000	4.193	0.000	4.193

Change Summary Explanation

FY09: Decrease of -\$6.873 million is due to reprogramming for Foliage Penetration efforts (-\$2.688 million), Small Business Innovative Research transfer (-\$0.575 million), and FY09 Omnibus reprogramming FY09-26PA (-\$3.584 million), and other program adjustments (\$0.026 million).

FY10: Decrease of -\$0.041 million is due to Section 8097 Congressional general reductions.

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APPROPRIATION/BUDGET ACTIVITY
0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE
PE 1160488BB: *SOF PSYOP/D476*

FY11: Increase of \$4.193 million is due to the DoD not estimating FY 2011 cost when the FY 2010 President's Budget was prepared.

Schedule: None.

Technical: None.

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
D476: <i>SOF PSYOPS</i>	8.251	9.846	4.193	0.000	4.193	2.990	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project provides for the development and acquisition of Psychological Operations (PSYOP) equipment. PSYOP are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct PSYOP in support of combatant commanders. The PSYOP sub-projects funded are grouped by the level of organization they support. Sub-projects include:

- The PSYOP Broadcast System consists of fixed and deployable multi-media production facilities for radio and television programming, distribution systems, and dissemination systems to provide PSYOP support to theater commanders. This program is comprised of several interfacing systems that can stand alone or interoperate with other PSYOP systems as determined by mission requirements. This program includes the fixed site media production center; a lightweight, deployable media production capability; a distribution system that provides a product distribution link to systems worldwide; a media system; a transit case fly-away broadcast systems that consists of a combination of amplitude modulation (AM), frequency modulation (FM), shortwave (SW), and television (TV) transmitters, and radio/TV production systems; software defined radio and a long range broadcast system which transmits analog and digital broadcasts. The long range broadcast system will include unmanned aerial vehicle payloads, scatterable media, telephony, and Internet broadcast. PSYOP media displays will consist of easily transportable, state of the art, electronic media displays designed to disseminate and direct broadcast electronic messages, which will influence foreign target audiences, and will support the PSYOP direct broadcast mission requirements. The Special Operations Media System-B is a tactical deployable radio and television broadcast system. It is designed to act as the forward deployed broadcast platform of products. It has limited production capabilities and consists of two independent systems: a mobile radio broadcast system (AM, FM, SW) and a mobile television broadcast system (VHF, UHF) capable of receiving audio and video products for broadcasting. Additionally, lightweight and tactical media development work stations will allow soldiers to produce PSYOP products in deployed locations.

- The Family of Loudspeakers program consists of modular amplifiers and speakers that can be interconnected to form sets of loudspeakers that will provide high quality recorded audio, live dissemination, and acoustic deception capability. Equipment is transported, operated, and mounted in ground vehicles, watercraft, and rotary wing aircraft, and dismounted for ground operations (tripod/manpack). This capability permits loudspeaker missions to be conducted over larger areas than previous equipment and provides a greater standoff distance for U.S. Forces/assets. The next generation loudspeaker system will consist of seven variants: manpack; ground vehicle/watercraft; unmanned air vehicle; unmanned ground vehicle; scatterable media long duration; scatterable media short duration; and sonic projection

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(focused sound). The next generation system will provide capability improvements to include wireless networking, improved acoustic performance, unmanned ground and air vehicle transportability, scatterable speaker, long distance sonic projection sound and solid state modular amplifiers/speakers that can be interconnected using secure wireless technology to form sets of loudspeakers that provide high quality recorded audio, live dissemination, and acoustic deception capability.

Commando Solo: Commando Solo supports combat operations by flying broadcast missions for the purpose of broadcasting analog and digital radio and/or television signals deep into denied territory. These broadcasts are made from EC-130J aircraft that are equipped with high powered transmitters and large antenna arrays that operate in the 0.45 - 1,000 MHz frequency range. The Commando Solo program acquisition strategy includes conducting engineering analyses to develop digital broadcast capabilities for the EC-130J and C-130J aircraft. Commando SOLO will leverage development and hardware from the Fly-Away Broadcast System.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
PSYOP Broadcast System <i>FY 2009 Accomplishments:</i> Continued primary hardware development, systems engineering, and developmental test and evaluation (DT&E) on the long range broadcast technology, broadcast modernization efforts and media displays. <i>FY 2010 Plans:</i> Continue primary hardware development, systems engineering, and DT&E on the long range broadcast technology, broadcast modernization efforts and media displays. <i>FY 2011 Base Plans:</i> Continues primary hardware development, systems engineering, and DT&E on the long range broadcast technology, broadcast modernization efforts and media displays.	4.039	8.036	3.169	0.000	3.169
Family of Loudspeakers	4.212	0.828	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> Conducted primary hardware and software development, systems engineering, and DT&E on the next generation unmanned ground vehicle, unmanned aerial vehicle, scatterable media long duration and scatterable media short duration variants.</p> <p><i>FY 2010 Plans:</i> Conduct primary hardware and software development, systems engineering and DT&E on sonic projection variant.</p>					
<p>Commando SOLO</p> <p><i>FY 2010 Plans:</i> Initiate engineering study of government and commercial digital broadcast technologies applicable to PSYOP.</p> <p><i>FY 2011 Base Plans:</i> Continues engineering study of government and commercial digital broadcast technologies applicable to PSYOP leading to the development of a performance specification.</p>	0.000	0.982	1.024	0.000	1.024
Accomplishments/Planned Programs Subtotals	8.251	9.846	4.193	0.000	4.193

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

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC: <i>PSYOP Equipment</i>	31.024	42.948	25.266		25.266	4.809	1.367	2.016	1.909	Continuing	Continuing

D. Acquisition Strategy

• PSYOP Broadcast System consists of wide-area systems providing radio, television programming and multi-media production, distribution and dissemination support to the theater commander. This system is comprised of several interfacing systems that can stand alone or interoperate with other systems as determined by mission

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<p>requirements. These various sub-programs are in a post-Milestone C or various stages of milestone decisions. Media displays consist of electronic media displays, modular systems, electronic paper, and electronic games. The program acquires and modifies, as necessary, commercial off-the-shelf /government off-the-shelf (COTS)/ (GOTS) systems and equipment to provide the system capabilities. The Family of Loudspeakers Next Generation Loudspeaker System consists of seven variants. The program acquires and modifies, as necessary, COTS/GOTS systems and equipment to replace or enhance current system capabilities.</p> <ul style="list-style-type: none">• Commando Solo funds modifications of the Commando Solo special mission equipment that broadcasts television and radio messages to target audiences in denied areas. Enhancements are periodically required to meet theater commander operational requirements and maintain compatibility with forces equipment upgrades to allow in-flight receipt of products for dissemination. The program acquires and integrates into the EC-130J commercial and GOTS systems to replace or enhance current system capabilities and address equipment shortfalls due to obsolescence.		
<u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 United States Special Operations Command										DATE: February 2010			
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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PSYOP Broadcast System	Various/ Various	Various Various	9.877	8.036	Jan 2010	3.169	Jan 2011	0.000		3.169	2.990	24.072	Continuing
Family of Loudspeakers	Various/ Various	Various Various	4.937	0.828	Jan 2010	0.000		0.000		0.000	0	5.765	Continuing
Commando SOLO	TBD/TBD	TBD TBD	0.000	0.982	Jan 2010	1.024		0.000		1.024	0	2.006	Continuing
Subtotal			14.814	9.846		4.193		0.000		4.193	2.990	31.843	

Remarks

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	14.814	9.846		4.193		0.000		4.193	2.990	31.843	

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 United States Special Operations Command **DATE:** February 2010

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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
PSYOP Broadcast System-Long Range Broadcast System Unmanned Aerial Vehicle-Payload Hardware Development and Testing	1	2009	4	2012
Family of Loudspeakers Next Generation Loudspeaker	1	2009	4	2010
Commando Solo	2	2010	4	2011

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