RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE MAY 2009
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160479BB SOF Visual Augmentation, Lasers and Sensor Systems/S395

COST (Dollars in Millions)	FY08	FY09	FY10	FY11	FY12	FY12	FY12	FY12	Cost to Complete	Total Cost
PE1160479BB		6.967	3.369						Cont.	Cont.
S395, SOF Visual Augmentation, Lasers and Sensor Systems		6.967	3.369						Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to enemy threats to ensure mission success.

B. Program Change Summary:

	FY08	FY09	FY10
Previous President's Budget		3.495	0.496
Current President's Budget		6.967	3.369
Total Adjustments		3.472	2.873
Congressional Program Reductions		-1.509	
Congressional Increases		5.000	
Reprogrammings			
Other Program Adjustments		-0.019	2.873

Funding:

FY09: Net increase of $3.472 million due to Congressional add for laser targeting device ($5.000 million), Congressional reduction for the laser rangefinder and designator (-$1.509 million), and a reduction for Section 8101 (-$0.019 million).

FY10: Net increase of $2.873 million due to laser targeting device increase required to continue the inertial navigation system weight reduction efforts ($1.968 million), sniper detection system increase for integration efforts on the current systems ($0.985 million), decrease for higher command priorities (-$0.074 million) and economic assumptions (-$0.006 million).

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: MAY 2009
Appropriation/Budget Activity RDT&E BA # 7	SOF Visual Augmentation, Lasers and Sensor Systems/Project S395	

Cost ($ in million)	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
SOF Visual Augmentation, Lasers and Sensor Systems		6.967	3.369					
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to enemy threats to ensure mission success.

- Family of Sniper Detection Systems - The sniper detection system is a passive acoustic system that detects and locates small arms fire origins and provides SOF units with the relative azimuth, elevation, and range. It has 360-degree coverage and allows users time to respond to hostile fire. This system can integrate with the PILAR Versatile Observation Turret for target identification "prior to fire capability.

- Precision Laser Targeting Device - Block II is a combined day/night optical system with a laser range finder to allow the detection and observation of targets. The range finder calculates the Global Positioning System (GPS) location of the target for identification and targeting purposes. The device provides precision accuracy in the geo-location of targets for the precision delivery of GPS-guided munitions. The system will greatly reduce fratricide incidents and reduce collateral damage during close air support missions.

- SOF Visual Augmentation Systems Binocular/Monocular - This program procures head/helmet mounted night vision goggle systems. These goggles provide the SOF operator the ability to maneuver, conduct fire control operations, and perform surveillance and reconnaissance. Research and development
of increased capability and performance goggles are essential to the SOF operator. Such improvements include fusion, wide field of view, and color night vision goggles.

B. Accomplishments/Planned Program

Cost ($ in million)	FY08	FY09	FY10
Family of Sniper Detection Systems			.985
RDT&E Articles Quantity			

FY10 Begins integration and testing efforts of Falcon View on the current sniper detection system.

Cost ($ in million)	FY08	FY09	FY10
Precision Laser Targeting Device		5.827	1.968
RDT&E Articles Quantity			

FY09 Continues the size, weight and power reduction of the overall system and miniaturization of the inertial navigation system.
FY10 Continue the size, weight and power reduction of the overall system and miniaturization of the inertial navigation system.

Cost ($ in million)	FY08	FY09	FY10
SOF Visual Augmentation Systems Binocular/Monocular		1.140	.416
RDT&E Articles Quantity			

FY09 Develops an advanced night vision goggle (e.g., sensor fusion, wide field of view, color), providing the SOF operator an increased capability over existing goggles.

C. Other Program Funding Summary:

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	To Complete	Total Cost
PROC SOF Visual Augmentation, Lasers and Sensor Systems		23.420	39.035						Cont.	Cont.
PROC Small Arms and Weapons	198.581									
RDTE S375, Weapons Systems and Advanced Development	15.394	3.853								

D. Acquisition Strategy:

- Family of Sniper Detection Systems. The gunfire detection system uses proven/existing technology validated under a Foreign Comparative Test program. Sole source contract to the vendor, Metravib, was awarded using streamlined procedures. Operational and environmental tests were conducted to support limited Fielding and Deployment Release.

- Precision Laser Targeting Device. This program will leverage an Army warfighter rapid acquisition program to develop a SOF version of a laser targeting device capable of providing geo-location of a target for the delivery of GPS- guided munitions. This version is required to improve the accuracy of coordinate geo-location to reduce the possibility of fratricide incidents.

- SOF Visual Augmentation Systems Binocular/Monocular. Develops the SOF next generation night vision goggle. Program will use an evolutionary acquisition approach.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: MAY 2009					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Visual Augmentation, Lasers and Sensor Systems/PE1160479BB SOF Visual Augmentation, Lasers and Sensor Systems/S395								
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 FY09	Award Date FY09	Budget Cost FY10	Award Date FY10	Budget Cost FY11	Award Date FY11	To Complete	Total Program
Primary Hardware Dev											
Precision Laser Targeting Device	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA		4.965	Jan-09	1.000	Jan-09				5.965
Special Operations Visual Augmentation System Binocular/Monocular	CPFF	GAPO, Ft Belvoir, VA		1.047	Jan-09	0.416	Apr-10				1.463
Subtotal Product Dev			0.000	6.012		1.416					7.428
Remarks:											
Developmental Test & Eval											
Precision Laser Targeting Device		PM Sensors & Lasers, Ft. Belvoir, VA		0.862	Jan-09	0.968	Jan-10				1.830
Special Operations Visual Augmentation System Binocular/Monocular		GAPO, Ft Belvoir, VA		0.093	Jan-09						0.093
Family of Sniper Detection System	FFP/TM	PM-CCS, Picatinny, NJ				0.985	Mar-10				0.985
Subtotal T&E			0.000	0.955		1.953				0.000	2.908
Remarks:											
Contractor Engineering Spt											
Subtotal Management											
Remarks:											
Total Cost			0.000	6.967		3.369					10.336
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																																
Date: MAY 2009																																
Appropriation/Budget Activity	Program Element and Name																															
RDT&E/7	PE1160479BB/Special Operations Forces Visual Augmentation, Lasers and Sensor Systems																															
Project Number and Name																																
Project S395/SOF Visual Augmentation, Lasers and Sensor Systems																																
	2008				2009				2010				2011				2012				2013				2014				2015			
Fiscal Year	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	1	2	3	4
Family of Sniper Detecion System																																
PILAR Versatile Observation Turret Integration Engineering																																
Development test																																
Precision Laser Targeting Device																																
Inertial Navigation System Minaturization, P3I development																																
Development test																																
Special Operations Visual Augmentation System Binocular/Monocular																																
Prototype Development																																
Development Test																																

Exhibit R-4a, RDT&E Program Schedule Detail				Date: MAY 2009				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE1160479BB/SOF Visual Augmentation, Lasers and Sensor Systems			Project S395/SOF Visual Augmentation, Lasers and Sensor Systems				
Schedule Profile	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Family of Sniper Detection Systems								
PILAR Versatile Observation Turret Integration Engineering			2Q - 4Q					
Developmental Test			4Q					
Precision Laser Targeting Device								
Inertial Navigation System Minaturization, P3I		2Q - 4Q	2Q - 4Q					
Developmental Test		4Q	4Q					
Special Operations Visual Augmentation System Binocular/Monocular								
Prototype Development		2Q - 4Q	2Q - 4Q					
Developmental Test		4Q	4Q					