Research, Development, Test and Evaluation, Defense Wide - USSOCOM   September 2008

Millions of Dollars

FY 2008 SUPPLEMENTAL

Service	APPN	BA	Line	Program P-1/R-1 Element for R&D Lines	Line Item Name	Original FY 2008 GWOT	FY 2008 Budget Amendment MRAP	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT
Research, Development, Test and Evaluation, Defense Wide - USSOCOM									
USSOCOM RDTE, DW		7	213	0305208BB	Distributed Common Ground/Surface Systems			3.170	3.170
USSOCOM RDTE, DW		7	235	1160408BB	SOF Operational Enhancements [1]			2.270	2.270
USSOCOM RDTE, DW		7	241	1160428BB	USSOCOM Unmanned Vehicles	74.968			

[1] - Details are classified and will be provided under separate cover.

TOTAL RDT&E	**74.968**	**0.000**	**5.440**	**80.408**

Exhibit R-1

APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 0305208BB Distributed Common Ground/Surface Systems (DCGS)/S400A

COST (Dollars in Millions)	Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT					
PE 0305208BB		3.170	3.170					
S400A, Distributed Common Ground/Surface Systems		3.170	3.170					

FY 2008 SUPPLEMENTAL

A. Mission Description and Budget Item Justification: This program element provides for the identification, development, and testing of the Distributed Common Ground System (DCGS). The DCGS Special Operations Forces (SOF) architecture interconnects the warfighter and sensors to "find and fix" terrorist and/or individuals. DCGS-SOF provides SOF leadership with situational awareness for planning and executing SOF missions. DCGS-SOF integrates tactical processing, exploitation, and dissemination data into the SOF Information Enterprise (SIE). DCGS-SOF develops and integrates SOF networks providing USSOCOM with unique decision capabilities to include: measurement and signature data, sensor exploitation, data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network (GSN) to those who will interpret the data for rapid transmission to collaborative partners via the SIE. DCGS-SOF will initially provide SOF with capabilities to conduct exploitation of Full Motion Video from unmanned aerial vehicle assets organic to SOF. DCGS-SOF will integrate and implement the DCGS Integration Backbone standards and architecture on the SIE that will support net-centric data sharing between SOF fixed, tactical capabilities, and sensors. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN.

B. Program Change Summary:

FY 2008 Supplemental Request
 - Request for Supplemental Funding of $3.170M for DCGS.

Appropriation/Budget Activity RDT&E BA # 7	Distributed Common Ground/Surface Systems/Project S400A

Cost ($ in millions)		Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT			
Distributed Common Ground/Surface Systems (DCGS)			3.170	3.170			
RDT&E Articles Quantity							

FY 2008 SUPPLEMENTAL

A. Mission Description and Budget Item Justification: This project provides for the identification, development, and testing of the Distributed Common Ground System (DCGS). The DCGS Special Operations Forces (SOF) architecture interconnects the warfighter and sensors to "find and fix" terrorist and/or individuals. DCGS-SOF provides SOF leadership with situational awareness for planning and executing SOF missions. DCGS-SOF integrates tactical processing, exploitation, and dissemination data into the SOF Information Enterprise (SIE). DCGS-SOF develops and integrates SOF networks providing USSOCOM with unique decision capabilities to include: measurement and signature data, sensor exploitation, data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network (GSN) to those who will interpret the data for rapid transmission to collaborative partners via the SIE. DCGS-SOF will initially provide SOF with capabilities to conduct exploitation of Full Motion Video from unmanned aerial vehicle assets organic to SOF. DCGS-SOF will integrate and implement the DCGS Integration Backbone standards and architecture on the SIE that will support net-centric data sharing between SOF fixed, tactical capabilities, and sensors. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN.

B. Accomplishments/Planned Program:

FY 2008 Supplemental Request	Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT	
DCGS		3.170	3.170	
RDT&E Articles Quantity				

FY08 Program Justification: USSOCOM Processing, Exploitation and Dissemination (PED) squadron (11 IS) conducts 24/7 PED of real-time intelligence feeds in direct support of combat operations in the Global War on Terror. RDT&E is required to fund the developmental effort to enhance PED support to the warfighter, specifically to develop, integrate, test, and evaluate the SOF DCGS Integrated Backbone (DIB), resource adaptors, Joint Intelligence Operations Capability, and DCGS-SOF PED system.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Intelligence Systems			12.442	2.308					14.750	14.750

Acquisition Strategy: DCGS-SOF will leverage available funds against ongoing efforts by other government agencies to meet SOF-peculiar documented requirements. DCGS-SOF technology will allow for seamless integration with DOD, interagency, or coalition Intelligence Surveillance and Reconnaissance TPED systems.

| APPROPRIATION / BUDGET ACTIVITY | Distributed Common Ground/Surface System (DCGS)/PE0305208BB |
| RDT&E DEFENSE-WIDE / 7 | Distributed Common Ground/Surface System (DCGS)/S400A |

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
Product Development											
DCGS-SOF	TBD	TBD						3.170	Dec-08		
FY 2008 Supplemental Request											
DCGS-SOF	TBD	TBD				3.170	Dec-07			Cont.	Cont.
Subtotal Product Dev			0.000	0.000		3.170		3.170		Cont.	Cont.
Remarks:											
Support Costs											
Subtotal Support Costs			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Test & Evaluation											
Subtotal T&E			0.000	0.000		0.000		0.000			0.000
Remarks:											
Management Services											
Subtotal Management			0.000	0.000		0.000		0.000		Cont.	0.000
Remarks:											
Total Cost			0.000	0.000		3.170		3.170		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile																														

Date: SEPTEMBER 2007

Appropriation/Budget Activity
RDT&E/7

Project Number and Name
Project S400A/DCGS

Fiscal Year	2006			2007				2008				2009				2010				2011				2012				2013			
	1	2	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
DCGS-SOF												Δ			Δ	Δ			Δ	Δ			Δ	Δ			Δ	Δ			Δ
FY 2008 Supplemental Request																															
DCGS-SOF								Δ			Δ																				

R-1 Shopping List Item No. 213
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R-4 Schedule Profile

Exhibit R-4a, RDT&E Program Schedule Detail				Date: SEPTEMBER 2007				
Appropriation/Budget Activity RDT&E/7		Program Element Number and Name PE0305208BB/Distributed Common Ground/Surface System (DCGS)			Project Number and Name Project S400A/DCGS				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
DCGS-SOF				1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
FY 2008 Supplemental Request								
DCGS-SOF			1-4Q					

APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160428BB Unmanned Vehicles (UV)/S850

COST (Dollars in Millions)	Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT					
PE1160428BB	74.968		74.968					
S850, Unmanned Vehicles	74.968		74.968					

FY 2008 SUPPLEMENTAL

A. Mission Description and Budget Item Justification: This program element addresses spiral development efforts validated in requirements documents for mid and long endurance Unmanned Aircraft Systems; supports development testing; and integrates system upgrades such as heavy fuel engine, increased endurance, reduced signature, increased telemetry range, and increased payload capacity for the Vehicle Craft Unmanned Aircraft System (VCUAS) and Logistics Support Vehicles to meet SOF mission requirements.

 B. Program Change Summary:

   FY 2008 Supplemental Request
    - Request $74.968 million to continue efforts started with a FY 2007 Congressional add for the GO Long Endurance UAS.

Appropriation/Budget Activity RDT&E BA # 7	Unmanned Vehicles (UV)/Project S850

Cost ($ in millions)		Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT				
UV		74.968		74.968				
RDT&E Articles Quantity		2		2				

FY 2008 SUPPLEMENTAL

A. Mission Description and Budget Item Justification: This project addresses spiral development efforts validated in requirements documents; supports development testing for mid and long endurance Unmanned Aircraft Systems; integrates system upgrades under an evolutionary acquisition strategy to obtain objective SOF mission requirements; and develops upgrades which include payload integration, platform improvements, targeting capabilities and digital datalink for the Rucksack Portable Unmanned Aircraft System (RPUAS); and heavy fuel engine, increased endurance, reduced signature, increased telemetry range, and increased payload capacity for the Vehicle Craft Unmanned Aircraft System (VCUAS); and develops a Logistics Support Vehicle (LSV).

B. Accomplishments/Planned Program:

FY 2008 Supplemental Request	Original FY 2008 GWOT	FY 2008 GWOT Cost Adjustment	Total FY 2008 GWOT	
Global Observer	74.968		74.968	
RDT&E Articles Quantity	2		2	

FY08 Program Justification: This effort adds two additional air vehicles, one launch and recovery element, three government furnished equipment Intelligence, Surveillance and Reconnaissance (ISR) and communication relay payloads, and additional testing and evaluation (e.g., ground duration and load testing for airworthiness certification, flight envelope expansion testing, and military user assessment) to the Global Observer effort started in FY 2007. Operationally, the GO UAS will provide an economical unmanned multi-functional platform to operate missions for up to seven days with a single aircraft. Missions can be performed supporting persistent ISR and targeting, Communications Relay and Battle Management Command and Control (C2), and Psychological Operations (PSYOP). Gaps in situational awareness and battlefield communications are the result without a near-term solution in development.

Appropriation/Budget Activity RDT&E BA # 7	Unmanned Vehicles (UV)/Project S850

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Unmanned Vehicles PROC		40.107	37.107	26.200	17.035	12.498	15.266	15.673	Cont.	Cont.
Small Arms and Weapons PROC	19.905									19.905

Acquisition Strategy: Leverages efforts of sole source Joint Capabilities Technology Demonstration fabrication and testing contract to demonstrate multi-aircraft operations and multiple payload capability in an operationally relevant environment.

| APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7 | Program Element 1160428BB/Unmanned Vehicles (UV) Project Name and Number   S850 |

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
Vehicle Craft Unmanned Aircraft System (VCUAS) Primary Hardware	Various	USSOCOM, MacDill AFB, FL				0.750	Dec-07	0.765	Dec-08	3.210	4.725
VCUAS Ancillary Hardware Development	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
FY 2008 Supplemental Request Global Observer Fabrication	Cost Plus	Aero Vironment, Simi Valley, CA				30.000	Aug-08				30.000
Subtotal Product Dev			0.000	0.000		30.900		0.918		3.852	35.670
Remarks:											
VCUAS Development Support	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
VCUAS Software Development	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
FY 2008 Supplemental Request Global Observer Design	Cost Plus	Aero Vironment, Simi Valley, CA				9.968	Aug-08				9.968
Subtotal Spt			0.000	0.000		10.268		0.306		1.284	11.858
Remarks:											
RPUAS Developmental Test & Evaluation	Various	NATICK	0.000	1.481	Nov-06						1.481
VCUAS Developmental Test & Evaluation	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
LSV Develop Test & Evaluation	Various			1.559	Jan-07						1.559
FY 2008 Supplemental Request Global Observer Testing	Cost Plus	Aero Vironment, Simi Valley, CA				10.000	Aug-08				10.000
Subtotal T&E			0.000	3.040		10.150		0.153		0.642	3.985
Remarks:											
VCUAS Contractor Engineering Support	TBD	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
FY 2008 Supplemental Request Global Observer Integration	Cost Plus	Aero Vironment, Simi Valley, CA				25.000	Aug-08				25.000
Subtotal Management			0.000	0.000		25.150		0.153		0.642	25.945
Remarks:											
Total Cost			0.000	3.040		76.468		1.530		6.420	77.458
Remarks:											

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide/7	PE1160428BB/Unmanned Vehicles (UV)	Project S850

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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
Vehicle Craft Unmanned Aircraft System (VCUAS) Block I																																
Design									△–△																							
Development										△——△																						
Integration													△–△																			
Testing															△—△																	
VCUAS Block II																																
Design																			△—△													
Development																						△—△										
Integration																										△—△						
Testing																												△—△				
VCUAS Block III																																
Design																													△—△			
Development																															△—△	
Integration																																△—△
Testing																																△—△
Rucksack Portable Unmanned Aircraft System																																
Development		▲——————▲—▲————△																														
Integration						△—△—△																										
Testing						△—△																										

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide/7	PE1160428BB/Unmanned Vehicles (UV)	Project S850

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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

Unmanned Logistics Support Vehicle

- Development — △ through △ △ (2007 Q2 to 2008 Q1)
- Integration — △ △ △ (2007 Q3 to 2008 Q1)
- Testing — △ (2008 Q1)

FY 2008 Supplemental Request

Global Observer

- Design — △ △ (2009 Q1 to Q2)
- Fabrication — △ through △ (2009 Q1 to Q3)
- Integration — △ through △ (2009 Q2 to Q4)
- Testing — △ through △ (2009 Q3 to 2010 Q1)

Exhibit R-4a, RDT&E Program Schedule Detail				Date: SEPTEMBER 2007				
Appropriation/Budget Activity		Program Element Number and Name		Project Number and Name				
RDT&E, Defense-Wide/7		PE1160428BB/Unmanned Vehicles (UV)		Project S850				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Vehicle Craft Unmanned Aircraft System (VCUAS)								
Design			1-2Q					
Development			2-4Q					
Integration				1-2Q				
Testing				3-4Q				
VCUAS Block III								
Design					1-2Q			
Development					3-4Q			
Integration						1-2Q		
Testing						3-4Q		
VCUAS Block IV								
Design							1-2Q	
Development							3-4Q	
Integration								1-2Q
Testing								3-4Q
Rucksack Portable Unmanned Aircraft System								
Development	2Q - 4Q	1Q - 4Q						
Integration		3Q - 4Q	1Q					
Testing		4Q	1Q					
Unmanned Logistic Support Vehicle								
Development		2Q - 4Q	1Q					
Integration		3Q - 4Q	1Q					
Testing			1Q					
FY 2008 Supplemental Request								
Global Observer								
Design			4Q	1Q				
Fabrication			4Q	1-2Q				
Integration				1-3Q				
Testing				2-4Q				