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**Department of Defense  
Fiscal Year (FY) 2012 Budget Estimates**

February 2011



**United States Special Operations Command**

*Justification Book Volume 5*

***Research, Development, Test & Evaluation, Defense-Wide***

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 771**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 787**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 791**  
**Organizations..... Volume 5 - 793**  
**Acronyms..... Volume 5 - 795**  
**Exhibit R-2's..... Volume 5 - 821**

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Defense-Wide  
 FY 2012 President's Budget  
 Exhibit R-1 FY 2012 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

01 Feb 2011

Summary Recap of Budget Activities -----	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj*	FY 2011 OCO Request with CR Adj*	FY 2011 Total Request with CR Adj*	FY 2011 Annualized CR Base**	FY 2011 Annualized CR OCO**	FY 2011 Annualized CR Total**
Applied Research	28,990	26,545		26,545	26,498		26,498
Advanced Technology Development (ATD)	75,927	39,982		39,982	39,912		39,912
Operational Systems Development	486,949	275,037	9,440	284,477	274,553	10,309	284,862
Total Research, Development, Test & Evaluation	591,866	341,564	9,440	351,004	340,963	10,309	351,272
 Summary Recap of FYDP Programs -----							
Intelligence and Communications	37,011	17,660		17,660	17,629		17,629
Special Operations Forces	553,264	320,460	9,440	329,900	319,896	10,309	330,205
Classified Programs	1,591	3,444		3,444	3,438		3,438
Total Research, Development, Test & Evaluation	591,866	341,564	9,440	351,004	340,963	10,309	351,272

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of February 1, 2011 at 09:07:14

\* Reflects the FY 2011 President's Budget with an undistributed adjustment to match the Annualized Continuing Resolution funding level by appropriation.

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01 Feb 2011

Summary Recap of Budget Activities -----	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Applied Research	26,591		26,591
Advanced Technology Development (ATD)	41,003		41,003
Operational Systems Development	428,833	2,450	431,283
Total Research, Development, Test & Evaluation	496,427	2,450	498,877
 Summary Recap of FYDP Programs -----			
Intelligence and Communications	11,847		11,847
Special Operations Forces	480,921	2,450	483,371
Classified Programs	3,659		3,659
Total Research, Development, Test & Evaluation	496,427	2,450	498,877

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of February 1, 2011 at 09:07:14

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Appropriation	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj*	FY 2011 OCO Request with CR Adj*	FY 2011 Total Request with CR Adj*	FY 2011 Annualized CR Base**	FY 2011 Annualized CR OCO**	FY 2011 Annualized CR Total**
Special Operations Command			9,440			10,309	
Total Research, Development, Test & Evaluation			9,440			10,309	

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Appropriation -----	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Special Operations Command		2,450	
Total Research, Development, Test & Evaluation		2,450	

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Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2010 (Base & OCO)	FY 2011 Base Request with CR Adj*	FY 2011 OCO Request with CR Adj*	FY 2011 Total Request with CR Adj*	FY 2011 Annualized CR Base**	FY 2011 Annualized CR OCO**	FY 2011 Annualized CR Total**	
25	1160401BB	Special Operations Technology Development	02	26,600	26,545		26,545	26,498		26,498	U
26	1160407BB	SOF Medical Technology Development	02	2,390							U
		Applied Research		28,990	26,545		26,545	26,498		26,498	
74	1160402BB	Special Operations Advanced Technology Development	03	71,549	30,806		30,806	30,752		30,752	U
75	1160422BB	Aviation Engineering Analysis	03	3,412	4,234		4,234	4,227		4,227	U
76	1160472BB	SOF Information and Broadcast Systems Advanced Technology	03	966	4,942		4,942	4,933		4,933	U
		Advanced Technology Development (ATD)		75,927	39,982		39,982	39,912		39,912	
217	0304210BB	Special Applications for Contingencies	07	26,925	16,272		16,272	16,243		16,243	U
232	0305208BB	Distributed Common Ground/Surface Systems	07	7,699	1,290		1,290	1,288		1,288	U
237	0305219BB	MQ-1 Predator A UAV	07	2,387	98		98	98		98	U
252	1105219BB	MQ-9 UAV	07	5,071	98		98	98		98	U
253	1105232BB	RQ-11 UAV	07								U
254	1105233BB	RQ-7 UAV	07								U
255	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,097							U
256	1160403BB	Special Operations Aviation Systems Advanced Development	07	64,108	68,691		68,691	68,570		68,570	U

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Appropriation: 0400D Research, Development, Test &amp; Eval, DW

Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se
25	1160401BB	Special Operations Technology Development	02	26,591		26,591	U
26	1160407BB	SOF Medical Technology Development	02				U
		Applied Research		26,591		26,591	
74	1160402BB	Special Operations Advanced Technology Development	03	35,242		35,242	U
75	1160422BB	Aviation Engineering Analysis	03	837		837	U
76	1160472BB	SOF Information and Broadcast Systems Advanced Technology	03	4,924		4,924	U
		Advanced Technology Development (ATD)		41,003		41,003	
217	0304210BB	Special Applications for Contingencies	07	5,045		5,045	U
232	0305208BB	Distributed Common Ground/Surface Systems	07	4,303		4,303	U
237	0305219BB	MQ-1 Predator A UAV	07	2,499		2,499	U
252	1105219BB	MQ-9 UAV	07	2,499		2,499	U
253	1105232BB	RQ-11 UAV	07	3,000		3,000	U
254	1105233BB	RQ-7 UAV	07	450	2,450	2,900	U
255	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07				U
256	1160403BB	Special Operations Aviation Systems Advanced Development	07	89,382		89,382	U

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257	1160404BB	Special Operations Tactical Systems Development	07	4,323	1,582		1,582	1,579		1,579	U
258	1160405BB	Special Operations Intelligence Systems Development	07	49,191	23,879	9,440	33,319	23,837	10,309	34,146	U
259	1160408BB	SOF Operational Enhancements	07	61,699	62,592		62,592	62,481		62,481	U
260	1160421BB	Special Operations CV-22 Development	07	12,214	14,406		14,406	14,381		14,381	U
261	1160423BB	Joint Multi-Mission Submersible	07	28,109	14,924		14,924	14,898		14,898	U
262	1160426BB	Operations Advanced Seal Delivery System (ASDS) Development	07	3,485							U
263	1160427BB	Mission Training and Preparation Systems (MTPS)	07	3,072	2,915		2,915	2,910		2,910	U
264	1160428BB	Unmanned Vehicles (UV)	07	996							U
265	1160429BB	AC/MC-130J	07	4,549	7,624		7,624	7,611		7,611	U
266	1160474BB	SOF Communications Equipment and Electronics Systems	07	706	1,922		1,922	1,919		1,919	U
267	1160476BB	SOF Tactical Radio Systems	07	56,279	2,347		2,347	2,343		2,343	U
268	1160477BB	SOF Weapons Systems	07	4,044	479		479	478		478	U
269	1160478BB	SOF Soldier Protection and Survival Systems	07	574	593		593	592		592	U
270	1160479BB	SOF Visual Augmentation, Lasers and Sensor Systems	07	4,764							U
271	1160480BB	SOF Tactical Vehicles	07	2,145	1,994		1,994	1,990		1,990	U
272	1160481BB	SOF Munitions	07								U

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Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se
257	1160404BB	Special Operations Tactical Systems Development	07	799		799	U
258	1160405BB	Special Operations Intelligence Systems Development	07	27,916		27,916	U
259	1160408BB	SOF Operational Enhancements	07	60,915		60,915	U
260	1160421BB	Special Operations CV-22 Development	07	10,775		10,775	U
261	1160423BB	Joint Multi-Mission Submersible	07				U
262	1160426BB	Operations Advanced Seal Delivery System (ASDS) Development	07				U
263	1160427BB	Mission Training and Preparation Systems (MTPS)	07	4,617		4,617	U
264	1160428BB	Unmanned Vehicles (UV)	07				U
265	1160429BB	AC/MC-130J	07	18,571		18,571	U
266	1160474BB	SOF Communications Equipment and Electronics Systems	07	1,392		1,392	U
267	1160476BB	SOF Tactical Radio Systems	07				U
268	1160477BB	SOF Weapons Systems	07	2,610		2,610	U
269	1160478BB	SOF Soldier Protection and Survival Systems	07	2,971		2,971	U
270	1160479BB	SOF Visual Augmentation, Lasers and Sensor Systems	07	3,000		3,000	U
271	1160480BB	SOF Tactical Vehicles	07	3,522		3,522	U
272	1160481BB	SOF Munitions	07	1,500		1,500	U

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273	1160482BB	SOF Rotary Wing Aviation	07	71,441	14,473		14,473	14,447		14,447	U
274	1160483BB	SOF Underwater Systems	07	24,238	13,986		13,986	13,961		13,961	U
275	1160484BB	SOF Surface Craft	07	12,098	2,933		2,933	2,928		2,928	U
276	1160488BB	SOF Military Information Support Operations	07	10,746	4,193		4,193	4,186		4,186	U
277	1160489BB	SOF Global Video Surveillance Activities	07	3,916	5,135		5,135	5,126		5,126	U
278	1160490BB	SOF Operational Enhancements Intelligence	07	10,482	9,167		9,167	9,151		9,151	U
9999	9999999999	Classified Programs		1,591	3,444		3,444	3,438		3,438	U
		Operational Systems Development		486,949	275,037	9,440	284,477	274,553	10,309	284,862	
Total Research, Development, Test & Eval, DW				591,866	341,564	9,440	351,004	340,963	10,309	351,272	

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Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se c
273	1160482BB	SOF Rotary Wing Aviation	07	51,123		51,123	U
274	1160483BB	SOF Underwater Systems	07	92,424		92,424	U
275	1160484BB	SOF Surface Craft	07	14,475		14,475	U
276	1160488BB	SOF Military Information Support Operations	07	2,990		2,990	U
277	1160489BB	SOF Global Video Surveillance Activities	07	8,923		8,923	U
278	1160490BB	SOF Operational Enhancements Intelligence	07	9,473		9,473	U
9999	9999999999	Classified Programs		3,659		3,659	U
		Operational Systems Development		428,833	2,450	431,283	
Total Research, Development, Test & Eval, DW				496,427	2,450	498,877	

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25	1160401BB	Special Operations Technology Development	02	26,600	26,545		26,545	26,498		26,498	U
26	1160407BB	SOF Medical Technology Development	02	2,390							U
		Applied Research		28,990	26,545		26,545	26,498		26,498	
74	1160402BB	Special Operations Advanced Technology Development	03	71,549	30,806		30,806	30,752		30,752	U
75	1160422BB	Aviation Engineering Analysis	03	3,412	4,234		4,234	4,227		4,227	U
76	1160472BB	SOF Information and Broadcast Systems Advanced Technology	03	966	4,942		4,942	4,933		4,933	U
		Advanced Technology Development (ATD)		75,927	39,982		39,982	39,912		39,912	
217	0304210BB	Special Applications for Contingencies	07	26,925	16,272		16,272	16,243		16,243	U
232	0305208BB	Distributed Common Ground/Surface Systems	07	7,699	1,290		1,290	1,288		1,288	U
237	0305219BB	MQ-1 Predator A UAV	07	2,387	98		98	98		98	U
252	1105219BB	MQ-9 UAV	07	5,071	98		98	98		98	U
253	1105232BB	RQ-11 UAV	07								U
254	1105233BB	RQ-7 UAV	07								U
255	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,097							U
256	1160403BB	Special Operations Aviation Systems Advanced Development	07	64,108	68,691		68,691	68,570		68,570	U

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Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Section
25	1160401BB	Special Operations Technology Development	02	26,591		26,591	U
26	1160407BB	SOF Medical Technology Development	02				U
Applied Research				26,591		26,591	
74	1160402BB	Special Operations Advanced Technology Development	03	35,242		35,242	U
75	1160422BB	Aviation Engineering Analysis	03	837		837	U
76	1160472BB	SOF Information and Broadcast Systems Advanced Technology	03	4,924		4,924	U
Advanced Technology Development (ATD)				41,003		41,003	
217	0304210BB	Special Applications for Contingencies	07	5,045		5,045	U
232	0305208BB	Distributed Common Ground/Surface Systems	07	4,303		4,303	U
237	0305219BB	MQ-1 Predator A UAV	07	2,499		2,499	U
252	1105219BB	MQ-9 UAV	07	2,499		2,499	U
253	1105232BB	RQ-11 UAV	07	3,000		3,000	U
254	1105233BB	RQ-7 UAV	07	450	2,450	2,900	U
255	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07				U
256	1160403BB	Special Operations Aviation Systems Advanced Development	07	89,382		89,382	U

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258	1160405BB	Special Operations Intelligence Systems Development	07	49,191	23,879	9,440	33,319	23,837	10,309	34,146	U
259	1160408BB	SOF Operational Enhancements	07	61,699	62,592		62,592	62,481		62,481	U
260	1160421BB	Special Operations CV-22 Development	07	12,214	14,406		14,406	14,381		14,381	U
261	1160423BB	Joint Multi-Mission Submersible	07	28,109	14,924		14,924	14,898		14,898	U
262	1160426BB	Operations Advanced Seal Delivery System (ASDS) Development	07	3,485							U
263	1160427BB	Mission Training and Preparation Systems (MTPS)	07	3,072	2,915		2,915	2,910		2,910	U
264	1160428BB	Unmanned Vehicles (UV)	07	996							U
265	1160429BB	AC/MC-130J	07	4,549	7,624		7,624	7,611		7,611	U
266	1160474BB	SOF Communications Equipment and Electronics Systems	07	706	1,922		1,922	1,919		1,919	U
267	1160476BB	SOF Tactical Radio Systems	07	56,279	2,347		2,347	2,343		2,343	U
268	1160477BB	SOF Weapons Systems	07	4,044	479		479	478		478	U
269	1160478BB	SOF Soldier Protection and Survival Systems	07	574	593		593	592		592	U
270	1160479BB	SOF Visual Augmentation, Lasers and Sensor Systems	07	4,764							U
271	1160480BB	SOF Tactical Vehicles	07	2,145	1,994		1,994	1,990		1,990	U
272	1160481BB	SOF Munitions	07								U

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257	1160404BB	Special Operations Tactical Systems Development	07	799		799	U
258	1160405BB	Special Operations Intelligence Systems Development	07	27,916		27,916	U
259	1160408BB	SOF Operational Enhancements	07	60,915		60,915	U
260	1160421BB	Special Operations CV-22 Development	07	10,775		10,775	U
261	1160423BB	Joint Multi-Mission Submersible	07				U
262	1160426BB	Operations Advanced Seal Delivery System (ASDS) Development	07				U
263	1160427BB	Mission Training and Preparation Systems (MTPS)	07	4,617		4,617	U
264	1160428BB	Unmanned Vehicles (UV)	07				U
265	1160429BB	AC/MC-130J	07	18,571		18,571	U
266	1160474BB	SOF Communications Equipment and Electronics Systems	07	1,392		1,392	U
267	1160476BB	SOF Tactical Radio Systems	07				U
268	1160477BB	SOF Weapons Systems	07	2,610		2,610	U
269	1160478BB	SOF Soldier Protection and Survival Systems	07	2,971		2,971	U
270	1160479BB	SOF Visual Augmentation, Lasers and Sensor Systems	07	3,000		3,000	U
271	1160480BB	SOF Tactical Vehicles	07	3,522		3,522	U
272	1160481BB	SOF Munitions	07	1,500		1,500	U

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273	1160482BB	SOF Rotary Wing Aviation	07	71,441	14,473		14,473	14,447		14,447	U
274	1160483BB	SOF Underwater Systems	07	24,238	13,986		13,986	13,961		13,961	U
275	1160484BB	SOF Surface Craft	07	12,098	2,933		2,933	2,928		2,928	U
276	1160488BB	SOF Military Information Support Operations	07	10,746	4,193		4,193	4,186		4,186	U
277	1160489BB	SOF Global Video Surveillance Activities	07	3,916	5,135		5,135	5,126		5,126	U
278	1160490BB	SOF Operational Enhancements Intelligence	07	10,482	9,167		9,167	9,151		9,151	U
Operational Systems Development				485,358	271,593	9,440	281,033	271,115	10,309	281,424	
Total Special Operations Command				590,275	338,120	9,440	347,560	337,525	10,309	347,834	

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of February 1, 2011 at 09:07:14

\* Reflects the FY 2011 President's Budget with an undistributed adjustment to match the Annualized Continuing Resolution funding level by appropriation.

\*\* Adjusts each budget line included in the FY 2011 President's Budget request proportionally to match the Annualized Continuing Resolution funding level for each appropriation.

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Special Operations Command  
 FY 2012 President's Budget  
 Exhibit R-1 FY 2012 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

01 Feb 2011

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Se
273	1160482BB	SOF Rotary Wing Aviation	07	51,123		51,123	U
274	1160483BB	SOF Underwater Systems	07	92,424		92,424	U
275	1160484BB	SOF Surface Craft	07	14,475		14,475	U
276	1160488BB	SOF Military Information Support Operations	07	2,990		2,990	U
277	1160489BB	SOF Global Video Surveillance Activities	07	8,923		8,923	U
278	1160490BB	SOF Operational Enhancements Intelligence	07	9,473		9,473	U
Operational Systems Development				425,174	2,450	427,624	
Total Special Operations Command				492,768	2,450	495,218	

R-1P: FY 2012 President's Budget (With FY 2011 CR Adjustments), as of February 1, 2011 at 09:07:14

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

Program Element Table of Contents (by Budget Activity then Line Item Number)

*Budget Activity 02: Applied Research*  
*Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide*

.....

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
25	02	1160401BB	Special Operations Technology Development.....	Volume 5 - 821
26	02	1160407BB	SOF Medical Technology Development.....	Volume 5 - 829

*Budget Activity 03: Advanced Technology Development (ATD)*  
*Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide*

.....

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
74	03	1160402BB	Special Operations Advanced Technology Development.....	Volume 5 - 833
75	03	1160422BB	Aviation Engineering Analysis.....	Volume 5 - 843
76	03	1160472BB	SOF Information and Broadcast Systems Advanced Technology.....	Volume 5 - 847

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

***Budget Activity 07: Operational Systems Development  
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
217	07	0304210BB	Special Applications for Contingencies.....	Volume 5 - 851
232	07	0305208BB	Distributed Common Ground/Surface Systems.....	Volume 5 - 859
237	07	0305219BB	MQ-1 Predator A UAV.....	Volume 5 - 869
252	07	1105219BB	MQ-9 Unmanned Aerial Vehicle.....	Volume 5 - 877
253	07	1105232BB	RQ-11 UAV.....	Volume 5 - 885
254	07	1105233BB	RQ-7 UAV.....	Volume 5 - 891
255	07	1160279BB	Small Business Innovative Research.....	Volume 5 - 897
256	07	1160403BB	Special Operations Aviation Systems Advanced Development.....	Volume 5 - 901
257	07	1160404BB	Special Operations Tactical Systems Development.....	Volume 5 - 913
258	07	1160405BB	Special Operations Intelligence Systems Development.....	Volume 5 - 917
260	07	1160421BB	Special Operations CV-22 Development.....	Volume 5 - 933
261	07	1160423BB	Joint Multi-Mission Submersible.....	Volume 5 - 941
262	07	1160426BB	Operations Advanced Seal Delivery System (ASDS) Development.....	Volume 5 - 945
263	07	1160427BB	Mission Training and Preparation Systems (MTPS).....	Volume 5 - 949
264	07	1160428BB	Unmanned Vehicles (UV).....	Volume 5 - 957
265	07	1160429BB	AC/MC-130J (formerly SOF Tanker Recapitalization).....	Volume 5 - 961

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

*Budget Activity 07: Operational Systems Development*  
*Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide*

.....

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
266	07	1160474BB	SOF Communications Equipment and Electronics Systems.....	Volume 5 - 969
267	07	1160476BB	SOF Tactical Radio Systems.....	Volume 5 - 977
268	07	1160477BB	SOF Weapons Systems.....	Volume 5 - 981
269	07	1160478BB	SOF Soldier Protection and Survival Systems.....	Volume 5 - 997
270	07	1160479BB	SOF Visual Augmentation, Lasers and Sensor Systems.....	Volume 5 - 1013
271	07	1160480BB	SOF Tactical Vehicles.....	Volume 5 - 1021
272	07	1160481BB	SOF Munitions.....	Volume 5 - 1029
273	07	1160482BB	SOF Rotary Wing Aviation.....	Volume 5 - 1035
274	07	1160483BB	SOF Underwater Systems.....	Volume 5 - 1047
275	07	1160484BB	SOF Surface Craft.....	Volume 5 - 1061
276	07	1160488BB	Military Information Support Operations (MISO) (Formerly SOF PSYOPS).....	Volume 5 - 1069

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line Item</b>	<b>Budget Activity</b>	<b>Page</b>
AC/MC-130J (formerly SOF Tanker Recapitalization)	1160429BB	265	07.....Volume 5 -	961
Aviation Engineering Analysis	1160422BB	75	03.....Volume 5 -	843
Distributed Common Ground/Surface Systems	0305208BB	232	07.....Volume 5 -	859
Joint Multi-Mission Submersible	1160423BB	261	07.....Volume 5 -	941
MQ-1 Predator A UAV	0305219BB	237	07.....Volume 5 -	869
MQ-9 Unmanned Aerial Vehicle	1105219BB	252	07.....Volume 5 -	877
Military Information Support Operations (MISO) (Formerly SOF PSYOPS)	1160488BB	276	07.....Volume 5 -	1069
Mission Training and Preparation Systems (MTPS)	1160427BB	263	07.....Volume 5 -	949
Operations Advanced Seal Delivery System (ASDS) Development	1160426BB	262	07.....Volume 5 -	945
RQ-11 UAV	1105232BB	253	07.....Volume 5 -	885
RQ-7 UAV	1105233BB	254	07.....Volume 5 -	891
SOF Communications Equipment and Electronics Systems	1160474BB	266	07.....Volume 5 -	969
SOF Information and Broadcast Systems Advanced Technology	1160472BB	76	03.....Volume 5 -	847
SOF Medical Technology Development	1160407BB	26	02.....Volume 5 -	829
SOF Munitions	1160481BB	272	07.....Volume 5 -	1029
SOF Rotary Wing Aviation	1160482BB	273	07.....Volume 5 -	1035
SOF Soldier Protection and Survival Systems	1160478BB	269	07.....Volume 5 -	997

**UNCLASSIFIED**

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United States Special Operations Command • President's Budget FY 2012 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line Item</b>	<b>Budget Activity</b>	<b>Page</b>
SOF Surface Craft	1160484BB	275	07.....	Volume 5 - 1061
SOF Tactical Radio Systems	1160476BB	267	07.....	Volume 5 - 977
SOF Tactical Vehicles	1160480BB	271	07.....	Volume 5 - 1021
SOF Underwater Systems	1160483BB	274	07.....	Volume 5 - 1047
SOF Visual Augmentation, Lasers and Sensor Systems	1160479BB	270	07.....	Volume 5 - 1013
SOF Weapons Systems	1160477BB	268	07.....	Volume 5 - 981
Small Business Innovative Research	1160279BB	255	07.....	Volume 5 - 897
Special Applications for Contingencies	0304210BB	217	07.....	Volume 5 - 851
Special Operations Advanced Technology Development	1160402BB	74	03.....	Volume 5 - 833
Special Operations Aviation Systems Advanced Development	1160403BB	256	07.....	Volume 5 - 901
Special Operations CV-22 Development	1160421BB	260	07.....	Volume 5 - 933
Special Operations Intelligence Systems Development	1160405BB	258	07.....	Volume 5 - 917
Special Operations Tactical Systems Development	1160404BB	257	07.....	Volume 5 - 913
Special Operations Technology Development	1160401BB	25	02.....	Volume 5 - 821
Unmanned Vehicles (UV)	1160428BB	264	07.....	Volume 5 - 957

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## *ORGANIZATIONS*

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1 SOW	1st Special Operations Wing
160th SOAR	160th Special Operations Aviation Regiment
AFSOC	Air Force Special operations Command
ARSOA	Army special operations Aviation
BGAD	Blue Grass Army Depot
CERDEC	Communications-Electronics Research, Development and Engineering Center
CSO	Center for Special Operations
DARPA	Defense Advanced research Projects Agency
DTRA	Defense Threat Reduction Agency
FDA	Federal Drug Administration
JSOAC	Joint Special Operations Aviation Component
MARSOC	Marine Special Operations Command
NATO	North Atlantic Treaty Organization
NAVAIR	Naval Aviation Systems
NAVSCIATTS	Naval Small Craft Instructor and Technical Training School
NAVSPECWARCOM	Naval Special Warfare Command
NSA	National Security Agency
NSWC	Naval Special Warfare Command
PMA-275	V-22 Joint Program Office
SOFSA	Special Operations Forces Support Facility
TAPO	Technology Applications Program Office
TSOC	Theater Special Operations Command
USAF	United States Air Force
USASOC	United States Army Special Operations Command
USSOCOM	United States Special Operations Command

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## ACRONYMS

A2C2S	Army Aviation Command & Control System
AA	Anti-Armor
AAR	After Action Review
AAWG	Alternative Analysis Working Group
ABIS	Automated Biometric Identification System
ACAT	Acquisition Category
ACO	Administrative Contracting Officer
ACP	Automatic Colt Pistol
ACTD	Advanced Concepts Technology Demonstration
ADAS	Advanced Distributed Aperture System
ADI	Attitude Direction Indicator
ADM	Area Deterrent Munitions
ADM	Acquisition Decision Memorandum
ADM-NVG	Advanced Digital Multi-Spectral Night Vision Goggle
ADP	Automated Data Processing
ADRAC	Altitude Decompression Sickness Risk Assessment Computer
ADSS	Adaptive Deployable Sensor Suite
AEA	Aviation Engineering Analysis
AECV	All Environment Capable Variant (UAS)
AESP	Autonomous Expeditionary Support Platform (medical)
AFCS	Auto Flight Control System
AFROCC	Air Force Operational Capabilities Council
AFSB	Afloat Forward Staging Base (Naval Systems)
AFSOC	Air Force Special Operations Command
AGE	Arterial Gas Embolism
AGTV	Armored Ground Tactical Vehicle
AHRS	Attitude Heading Reference System
AIP	(ASDS) Improvement Program
AIS	Automated Information System
ALE	Automatic Link Establishment
ALGL	Autonomous Landing Guidance System
ALGS	Advanced Lightweight Grenade Launcher
ALLTV	All Light Level Television
ALMBOS	Acquisition, Logistics, Management and Business Operations Support
AMHS	Automated Message Handling System
AMP	Avionics Modernization Program
AMR	Anti-Materiel Rifle
AMSA	Acquisition Management System
AMSA	Alternative Material Solution Analysis
ANA	Afghan National Army
ANP	Afghan National Police
AoA	Analysis of Alternatives
AOI	Area of Interest
AOPBS	Aircraft Occupant Ballistic Protection System

## ACRONYMS

AOR	Area of Responsibility
APB	Acquisition Program Baseline
APC	Acquisition Project Category (USSOCOM)
APM	Assistant Program Manager (formerly System Acquisition Manager (SAM))
APWG	Acquisition Protection Working Group
ARAP	ASDS Reliability Action Panel
ARATS	Aircraft Radar APQ-170 Test Station
ARB	Acquisition Review Board
ARDC	Army Research Development and Engineering Center
ARL	Army Research Lab
ARL	Army Research Laboratory
ARL - UT	Applied Research Lab - University of Texas
ARV	Armored Recovery Variant (MRAP)
AS	Acquisition Strategy
AS&C	Advanced Systems Concept
ASAD	Advanced Studies and Development
ASC	Aeronautical Systems Center
ASD	Assistant Secretary of Defense
ASD (NII)	ASD for Networks and Information Integration
ASD (SO/LIC)	ASD for Special Operations and Low Intensity Conflict
ASDS	Advanced Sea, Air, Land (SEAL) Delivery System
ASE	Aircraft Survivability Equipment
ASFF	Afghanistan Security Forces Fund
ASIC	Application Specific Integrated Circuit
ASICD	Application Specific Integrated Circuit Development
ASM	Anti Structural Munitions
ASMA	Alternative Solution Materials Analysis
ASOIE	Associated Support Items of Equipment
AT&L	(OSD) Acquisition, Technology, and Logistics
ATA	Alternate (or Additional) Test Aircraft (CV-22)
ATACMS	Army Tactical Missile System
ATD	Advanced Technology Demonstration
ATD/TB	AC-130U Gunship Aircrew Training Devices/Testbed
ATIRCM	Advanced Threat Infrared Countermeasures
ATL	Advanced Tactical Laser
ATM	Asynchronous Transfer Mode
ATPIAL	Advanced Tactical Precision Illuminator Aiming Laser
ATPS	Advanced Tactical Parachute System
ATR	Above Threshold Reprogramming
AT-UBA	Advanced Technology Underwater Breathing Apparatus
ATV	All Terrain Vehicle
AUV	Armored Utility Variant (MRAP)
AvFID	Aviation Foreign Internal Defense
AWE	Aircraft, Weapons, Electronics



## ACRONYMS

AWES	Area Weapons Effects Simulation
BAA	Broad Area Announcement
BAFO	Best and Final Offer
BAI	Backup Aircraft Inventory
BALCS	Body Armor Load Carriage System
BFM	Business Financial Manager
BFT	Blue Force Tracking
BGAD	Blue Grass Army Depot
BIO	Basic Input Output
BLOS	Beyond Line-of-Site
BLOSeM	Below Line-of-Site Electronic Support Measures
BMATT	Brief Multi-mission Advanced Tactical Terminal
BMS	Battle Management System
BNVS	Binocular Night Vision System
BOD	Board of Directors
BOI	Basis of Issue
BOIA	Basis of Issue Approved
BOIP	Basis of Issue Plan
BOIR	Basis of Issue Requirement
BRP	Bombardier Recreational Products
BTR	Below Threshold Reprogramming
BUD/S	Basic Underwater Demolition School
BULLDOG XL	All-Terrain transport (AKA MUTT) vehicle
C2	Command and Control
C3I	Command, Control, Communications, and Intelligence
C4	Command, Control, Communications, and Computers
C4I	Command, Control, Communications, Computers, and Intelligence
C4IAS	Command, Control, Communications, Computers, and Intelligence Automation System
CAAP	Common Avionics Architecture for Penetration
CAAS	Common Avionics Architecture Systems
CAC	Cost Accounting Codes
CAE	Component Acquisition Executive
CAIG	Cost Analysis Improvement Group
CAIV	Cost as an Independent Variable
CALS	Continuous Acquisition and Life Cycle Support
CAMS	Combat Autonomous Mobility System
CAP	Combat Air Patrol
CAP	Cost Analysis Panel
CAPE	Cost Assessment and Program Evaluation (OSD; replaces PA&E)
CAPS	Counter-Proliferation Analysis and Planning System
CAS	Close Air Support
CASEVAC	Group Level Casualty Evacuation
CAS-TIC	Close Air Support - Troops in Contact
CAT	Acquisition Category

## ACRONYMS

CBA	Concealable Body Armor
CBN	Chemical, Biological and Nuclear
CBS	Cost Breakdown Structure
CCB	Configuration Control Board
CCCEKIT	Combat Casualty Care Equipment Kit
CCD	Charged Coupled Device (Forward Looking Infrared Radar Only)
CCD	Coherent Change Detection
CCFLIR	Combatant Craft Forward Looking Infrared (Radar)
CCH	Combatant Craft - Heavy
CCJO	Capstone Concept for Joint Operations
CCL	Combatant Craft - Light
CCM	Combatant Craft - Medium
CCSA	Combat Command Support Agency
CDD	Capabilities Development Document
CDR	Commander
CDR	Critical Design Review
CEP	Circular Error Probable/Probability
CEQ	Council on Environmental Quality
CERP	Capital Equipment Replacement Plan
CERP	Cost Estimating Relationships
CERTEX	Certification Exercise
CESE	Civil Engineering Support Equipment
CET	Capability Evaluation Team
CF&DR	Conditional Fielding and Deployment Release
CFE	Contractor Furnished Equipment
CFR	Code of Federal Regulations
CI	Counterintelligence
CIDS	Capabilities Integration and Development Systems
CIDS	Combat Identification
CINC	Commander in Chief
CIO	Chief Information Officer
CJSOAC	Commander Joint Special Operations Air Component
CL	Centerline (as in ASDS/JMMS)
CLR	Combat Loss Replacement
CM	Configuration Management
CMDS	Countermeasure Dispensing System
CMNS	Combat Mission Needs Statement
CMS	Combat Mission Simulator
CNO	Chief, Naval Operations
CNSWC	Commander, Naval Special Warfare Command
CNT	Combating Narco Terrorism
CNVD	Clip-On Night Vision Device
CO	Contracting Officer
COA	Cooperative Opportunity Analysis



## ACRONYMS

COA	Course of Action
CODEL	Congressional Delegation
COE	Corps of Engineers
COIL	Chemical Oxygen Iodine Laser
COIL	Contract of Interest
COIL	Critical Operational Issue
COMSEC	Communications Security
CONOPS	Concept of Operations
COR	Contracting Officer's Representative
CORB	Command Operations' Review Board
CoS	Chief of Staff
COTS	Commercial-Off-The-Shelf
COW	Cost of War
CP	Concealable Pistol
CP	Counter-Proliferation
CPAF	Cost Plus Award Fee
CPARS	Contractor Performance Assessment Reporting System
CPD	Capabilities Production Document
CPI	Critical Program Information
CRB	Capability Review Board
CRIF	Consolidated Rapid Integration Facility
CRM	Comment Review Matrix
CRRC	Combat Rubber Raiding Craft
CS	Combat Swimmer
CS	Confined Space (Light Anti-Armored Weapons)
CSAR	Combat Survivor Evader Locator
CSB	Configuration Steering Board
CSEL	Combat Search and Rescue
CSH	Combat Submersible - Heavy
CSM	Combat Submersible - Medium
CSOLO	Commando Solo
CSR	Critical System Review
CT	Counter Terrorism
CTP	Critical Technical Parameters
CTTL	Clandestine Tagging, Tracking, and Locating
CVR	Cockpit Voice Recorder
CW	Center Wing
CWG	Capability Working Group
DA	Direct Action
DAA	Designated Approval Authority
DAB	Defense Advisory Board
DAC	Defense Acquisition Challenge
DAC	Discretionary Access Control (in message system)
DAGR	Defense Advanced Global Positioning System Receiver

## ACRONYMS

DAMA	Demand Assured Multiple Access
DARPA	Defense Advanced Research Projects Agency
DAS	Distributed Aperture System
DASD-CN	Deputy Secretary of Defense - Counter Narcotics
DAWG	Deputy Advisory Working Group
DCDR	Deputy Commander
DCGS	Data Common Ground/Surface System
DCS	Decompression Sickness
DDL	Digital Data Link
DDP	Detachment Deployment Packages (Maritime)
DDR&E	Director, Defense Research & Engineering
DDS	Dry Deck Shelter
DEPORD	Deployment Orders
DERF	Defense Emergency Response Fund
DFARS	Defense Federal Acquisition Regulation Supplement
DFAS	Defense Finance and Accounting Service
DHEA	Dehydroepiandrosterone
DHIP	Defense Human Intelligence Program
DIAM	Data Interface Acquisition Module
DIRCM	Directional Infrared Countermeasures
DITPR	Defense Information Technology Portfolio Repository
DITPR	Directory Information Tree (message system)
DLR	Depot Level Replacements (Replenishment)
DMCS	Deployable Multi-Channel SATCOM
DMS	Defense Message System
DMS	Diminished Manufacturing Sources (ASDS)
DMT/DMR	Distributed Mission Training/Distributed Mission Rehearsal
DNI	Director National Intelligence
DoD	Department of Defense
DoDD	Department of defense Directive
DODI	Department of Defense Instruction
DOE	Department of Energy
DoP	Director of Procurement
DOTMLPF	Doctrine, Organization, Training, Material, Leadership & Education, Personnel & Facilities
DPAP	Director of Procurement and Acquisition Policy
DPPC	Deployable Print Production Center
DPS	Defense Planning Scenarios
DROG	Defense Resources Overview Guidance
DS&TI	Designated Science and Technology Information
DSLID	Dry Submersible Long Duration
DSO	Direct Support Operators
DSRV	Deep Submergence Rescue Vehicle
DSS	Deep Submergence Systems
DT	Development and Test

## ACRONYMS

DT&E	Development Test and Evaluation
DTA	Development & Test Aircraft
DTT	Desk Top Trainer
DUSD	Deputy Under Secretary of Defense
EA	Evolutionary Acquisition
EADS	European Aeronautical Defense & Space Company (Airbus Parent)
EADS	Expendable Airdrop Delivery System
EAPS	Engine Air Particle Separator
ECAC	Evasion and Conduct After Capture (part of SERE school)
ECHS	Enhanced Cargo Handling System
ECM	Electronic Countermeasures
ECO	Engineering Change Order
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EFIS	Electronic Flight Information System
EFP	Explosively Forced Penetrator
EGLM	Enhanced Grenade Launcher Module
EIR	Embedded Integrated Broadcast System Receiver
EIRS	Enhanced Infrared Suppression
ELT	Emergency Locator Transmitter
EMD	Engineering and Manufacturing Development
EMP	Electromagnetic Pulse (weapon)
ENTR	Embedded National Tactical Receiver
EO/IR	Electro-Optical Infrared
EPRO	Environmental Protection
ERTP	Extended Trans-Regional PSYOP Program
ESA	Enhanced Situational Awareness
ESG	Expeditionary Strike Group (Naval Systems)
ESOH	Environmental Safety and Occupational Health
ESWBS	Expanded Ship Work Breakdown Structure
ETCAS	Enhanced Traffic Alert and Collision Avoidance System
ETI	Evolutionary Technology Insertion
ETV	Extreme Terrain Vehicle
EUAS	Early User Assessment
EUAS	Expeditionary UAS
EUE	Extended User Evaluation
EVM	Earned Value Management
EW	Electronic Warfare
EWAISF	Electronic Warfare Avionics Integrated Systems Facility
EWO	Electronic Warfare Officer
F&DR	Fielding & Deployment Release
F2EA	Find & Fix Exploitation Analysis
F3EA	Find, Fix, Finish, Exploit, Analyze



## ACRONYMS

FAA	Federal Aviation Administration
FAA	Functional Area Analysis
FAADC2	Forward Area Air Defense Command and Control
FABS	Fly-Away Broadcast System
FAR	Federal Acquisition Regulation
FATA	Federally Administered Tribal Area
FBCB2	Force XXI Battle Command, Brigade and Below
FCD	Field Computing Devices
FCT	Foreign Comparative Testing
FDEK	Forward Deployed Equipment Kit
FEPSO	Field Experimentation Program for Special operations
FFE	Fire From Enclosure
FID	Foreign Internal Defense
FISA	Foreign Intelligence Surveillance Act
FLIR	Forward Looking Infrared Radar
FMAV	Fleet Maintenance Availabilities
FMBS	Family of Muzzle Brake Suppressors
FMS	Foreign Military Sales
FMV	Full Motion Video
FNA	Functional Needs Analysis
FNM	Foreign & Nonstandard Materiel
FOC	Final (or Full) Operational Capability
FOIA	Freedom of Information Act
FOL	Family of Loud Speakers
FOPEN	Foliage Penetration
FOS	Forward Operating Site
FOS (or FoS)	Family of Systems
FOT&E	Follow-on Test and Evaluation
FPM	Flight Performance Model
FRACAS	Failure Reporting Analysis and Corrective Action System
FSA	Functional Solutions Analysis
FSDS	Family of Sniper Detection Systems
FSOV	Family of SOF Vehicles
FSR	Field Service Representative
FSW	Family of Sniper Weapons
FSWG	Force Structure Working Group
FTE	Full Time Equivalent
FUE	First Unit Equipped
FW	Fixed Wing
FY	Fiscal Year
FYDP	Future Year(s) Defense Plan
GAB	Global Address Book (message system)
GATM	Georgia All Terrain Monsters (Vehicle Manufacturer)
GBS	Global Broadcasting System

## ACRONYMS

GCC	Geographical Combatant Commanders
GDF	Guidance for the Development of the Force
GDIP	General Defense Intelligence Program
GDS	Gunfire Detection System
GDSOF	Guidance for the Development of Special Operations Forces
GEF	Global Employment of the Force
GEO	Geological
GFE	Government Furnishment Equipment
GIG	Global Information Grid
GMS-2	Gunship Multispectral System - 2
GMTI	Ground Moving Target Indicator
GMV	Ground Mobility Vehicles
GM-VAS	Ground Mobility Visual Augmentation Systems
GOTS	Global Observer (UAV)
GOTS	Government-Off-the-Shelf
GPK	Gunner Protection Kit
GPPC	Gov't Property in the Possession of Contractors
GPS	Global Positioning System
GR&A	Ground Rules and Assumptions
GRID	Global War on Terrorism (GWOT) Request Information Database
GSK	Ground Signal Intelligence Kit
GSM	Global System Mobile
GSN	Global Sensor Network
GSP	Global SOF Posture
HALE	High Altitude Long Endurance
HAR	Hazard Assessment Report
HASC	House Armed Services Committee
HE	High Explosive
HEI	High Explosive Incendiary
HF	High Fragmentation (munitions)
HF	High Frequency
HFIS	Hostile Fire Indicating System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held
HHI	Hand Held Imager
HIS	Human Systems Integration
HLA	High Level Architecture
HMMWV	High Mobility Multi-purpose Wheeled Vehicle
HMU	Hydrographic Mapping Unit
HOA	Head of Agency
HOA	Horn of Africa
HPFOTD	High Power Fiber Optic Towed Decoys
HPMMR	High Performance Multi-Mission Radio (PRC-117F)
HPS	Human Patient Simulator

## ACRONYMS

HRLMD	Hydrographic Reconnaissance Littoral Mapping Device
HSB	High Speed Boat
HSE	Host Support Equipment
HSR	Heavy Sniper Rifle
H-SUV	Hardened-Sport Utility Vehicle
HUD	Heads Up Display
HVI	High Value Individual
HVT	High Value Target
IAS/CMS	Integration Avionics System/Cockpit Management System
IAT	Integration Assembly & Test
IBR	Intelligence Broadcast Receiver
IBS	Integrated Bridge System (Naval System)
IBS	Integrated Broadcast Service
IC	Interim Configuration
ICA	Independent Cost Assessment
ICAD	Integrated Control and Display
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
ICLS	Interim Contractor Logistics Support
ICS	Interim Combat System (Naval Systems)
ICS	Interim Contractor Support
ICT	Integrated Concept Team
IDAP	Integrated Defensive Armed Penetrator
IDAS	Interactive Defensive Avionics Subsystem
IDS	Infrared Detection System
IDWS	Interim Defensive Weapon System (CV-22 All-Quadrant Gun)
IED	Improvised Explosive Devices
IFF	Identify Friend or Foe
IFTS	Integrated Financial Tool for SOAL (integrated Financial Tracking System?)
IGPS (or iGPS)	Iridium Global Positioning System
ILM	Improved Limpet Mine
ILSP	Integrated Logistics Support Plan
ILSS	Integrated Logistics Support Strategy
IM	Insensitive Munitions
IMFP	Integrated Multi-Function Probe
INFOSEC	Information Security
INOD	Improved Night/Day Observation/Fire Control Device
INS	Inertial Navigation System
IOC	Initial Operational Capability
IOT&E	Initial Operational Test & Evaluation
IOV	Indigenous Operations Vehicle
IPC	International Program Office
IPOC	Initial Proof-of-Concept
IPT	Integrated Product Team

## ACRONYMS

IPUMA	Intergraded Precision Underwater Mapping
IQAF	Iraqi Air Force
IR	Infrared
IRAM	Improvised Rocket Assisted Munitions (or Mortar)
IRCM	Infrared Countermeasures
IRD	Initial Requirements Document
ISAF	International Security Assistance Force (NATO)
ISFF	Iraqi Security Forces Fund
ISOCA	Improved Special Operations Communications Assemblage
ISP	Information Support Plan
ISP	Integrated Service Desk
ISR	Intelligence Surveillance and Reconnaissance
ISSMS	Improved SOF Manpack System
ISSO	Information Systems Security Office
IT	Information Technology
IT&E	Integrated Test & Evaluation
ITMP	Integrated Technical Management Plan
ITPP	Information Technology Project Plan
ITT	Integrated Test Team
IUID	Item Unique Identification
IWIS	Integrated Warfare Info System
JAMS	Joint Attack Munitions Systems
JBS	Joint Base Station
JCA	Joint Cargo Aircraft
JCD	Joint Capabilities Document
JCET	Joint/Combined Exercise Training
JCIDS	Joint Capabilities Integration and Development System
JCS	Joint Chiefs of Staff
JCTD	Joint Concept Technology Demonstration
JDAM	Joint Direct Attack Munitions
JDISS	Joint Deployable Intelligence Support System
JEM	Joint Enhanced Multi-Purpose Inter/Intra Team Radio
JFA	Joint Functional Area
JHL	Joint Heavy Lift
JICO	Joint Interface Control Officer
JIEDO	Joint Improvised Explosive Device Office
JMC	Joint Munitions Command
JMDSE	Joint Medical Distance Support and Evacuation
JMISC	Joint Military Info Systems Command
JMMS	Joint Multi-Mission Submersible
JMPS	Joint Mission Planning System
JMTG	Joint Military Terminology Group
JOS	Joint Operational Stocks
JPADS	Joint Precision Airdrop System



## ACRONYMS

JPATS	Joint Primary Aircraft Trainer System
JPATS	Joint Process Action Team
JPG	Joint Programming Guidance
JPO	Joint Program Office
JPOTF	Joint Psychological Task Force
JREC	Joint Resources Executive Council
JRMP	Joint Resources Management Process
JROC	Joint Requirements Oversight Council
JRWG	Joint Resources Working Group
JSOAC	Joint Special Operations Aviation Components
JSOC	Joint Special Operations Command
JSOTF	Joint Special Operations Task Force
JSTAR	Joint Surveillance and Target Attack Radar System
JTAC	Joint Terminal Attack Controller
JTC	Joint Terminal Control
JTCITS	Joint Tactical C4I Information Transceiver System
JTF	Joint Task Force
JTRS	Joint Tactical Radio System
JTWS	Joint Threat Warning System
JUON	Joint Urgent Operational Need
JWSTAP	Joint Weapons Safety Technical Advisory Panel
KPP	Key Performance Parameter
LAIRCM	Large Aircraft Infrared Control Measures
LAN/WAN	Local Area Network/Wide Area Network
LASAR	Light Assault Attack Reconfigurable Simulator
LASIK	Laser-Assisted IN-Situ Keratomileusis
LASSO	Land and Sea Special Operations (mobility)
LAW	Light Anti-Armored Weapons
LBJ	Low Band Jammer
LCCE	Life Cycle Cost Estimate
LCM	Life Cycle Management
LCM	Low Cost Modifications
LCMP	Life Cycle Management Plan
LCMR	Lightweight Counter Mortar Radar
LCSM	Life Cycle Sustainment Manager
LCSMP	Life Cycle Sustainment Management Plan
LCSP	Life-Cycle Sustainment Plan
LDS	Leaflet Delivery System
LEP	Lightweight Environmental Protection
LEVUAS	Long Endurance Vertical Take Off and Landing UAS
LFT&E	Live Fire Test and Evaluation (Maritime)
LIO	Lock In/Out (on ASDS/JMMS)
LIPT	Logistics Integrated Product Team
LLTM	Long Lead Time Material



## ACRONYMS

LMAMS	Lethal Miniature Aerial Munitions System
LMG	Lightweight Machine Gun
LO	Low Observable (UV)
LOE	Limited Objective Experimentation
LOGSU	Logistics and Support Unit
LOS	Line of Sight
LPD	Low Probability of Detection
LPI	Low Probability of Intercept
LPI/D	Low Probability of Intercept/Detection
LPI/LPD	Low Probability of Intercept/Low Probably of Detection
LRBS	Long Range Broadcast System
LR-GMVAS	Long Range Ground Mobility Visual Augmentation Systems
LRIP	Low Rate Initial Production
LRPP	Long Range Planning Process
LRV	Light Reconnaissance Vehicle
LSV	Logistics Support Vehicle
LTAV	Lightweight Tactical All Terrain Vehicle
LTD	Laser Target Designator
LTDR	Laser Target Designator/Rangefinder
LTI	Lightweight Thermal Imager
LTT	Locating, Tagging, Tracking
LTV	Land Transport Vehicle
LVA	Low Visibility Aviation
LVNS	Low Visibility Non-Standard (Naval Systems)
LVY	Low Volume Terminal
LWC	Littoral Warfare Craft
LWCM	Lightweight Counter-Mortar
LWIR	Long-wave Infrared
M&S	Modeling & Simulation
M2	Multi-Mission Unmanned Aircraft System
M4MOD	M4A1 SOF Carbine Accessory Kit
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MACE	Multi-Agency Collaboration Environment
MAC-II	Mission Assurance Category Level 2
MADE	Maritime Access to a Denied Environment
MAIS	Major Automated Information System
MALET	Medium Altitude Long Endurance Tactical (UAS)
MANPAD	Man Portable Air Defense System
MARSOC	Military Amphibious Reconnaissance System (Army NBOE)
MARSOC	U.S. Marine Special Operations Command
MASINT	Measurement and Signature Intelligence
MATT	Multi-mission Advanced Tactical Terminal
MBE	Mission Based Experimentation
MBITR	Multi-Band Inter/Intra Team Radio

## ACRONYMS

MBLT	Machine Based Language Translator
MBMMR	Multi-Band/Multi-Mission Radio
MBSS	Maritime Ballistic Survival System
MCADS	Maritime Craft Air Drop System
MCAR	MC-130 Air Refueling
MCD	Man caused disaster (formerly terrorist)
MCU	Multipoint Conferencing Unit
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MDNA	Mini Day/Night Sight
ME	Military Equipment
MEDTECH	Special Operations Medical Technology Development
MELB	Mission Enhancement Little Bird
MET	Meteorological
MEV	Military Equipment Valuation
MFP	Major Force Program
MFP	Materiel Fielding Plan
MFP-11	Major Force Program-11
MICH	Modular Integrated Communications Helmet
MIDS	Multifunction Information Distribution System
MILDEP	Military Department
MILES	Multiple Integrated Laser Engagement System
MIP	Military Intelligence Program
MIST	Military Information Support Teams
MIST	Miniature ISR Technology
MIU	Munitions Interface Unit
MK 8 (or MK 8 Mod 1)	Mark 8 Sea, Air, Land (SEAL) Delivery Vehicle (SDV)
MK V	Mark V Combatant Craft
MLE	Military Liaison Element
MMA	Material Management Activity (J4)
MMB	Miniature Multiband Beacon
MOA	Memorandum of Agreement
MOE	Measures of Effectiveness
MONO-HUD	Monocular Head Up Display
MOP	Measures of Performance
MOSA	Modular Open System Architecture
MOST	Mobile Over the Snow Transport
MPARE	Mission Planning, Analysis, Rehearsal and Execution
MPC	Media Production Center
MPC	Multi-Purpose Canine (military working dog)
MPK	Mission Planning Kits
MPOC	Mission Predator Operations Center
MQ-1	Predator Unmanned Vehicle
MQ-9	Reaper Unmanned Vehicle

## ACRONYMS

MRAP	Mine Resistant Ambush Protected
MRD	Mission Rehearsal Device
MS	Milestone
MSGGL	Multi-Shot Grenade Launcher
MSLO	Mass Swimmer Lock-Out
MSV	Maritime Support Vessel
MTBM	Mean Time Between Maintenance
MTPS	Master Test Plan
MTPS	Mater Test Plan
MTPS	Mission Training and Preparation System
MTRC	Mobile Technology Repair Center
MTs	Mission Tasks
MTT	Mobile Training Teams
MUA	Military Utility Assessment
MUTT	Mobile Utility Terrain Transport (aka Bulldog XL)
MWIR	Mid-wave Infrared
MWS	Missile Warning system
NAVAIR	Naval Aviation Systems Command
NAVSCIATTS	Naval Small Craft Instructor and Technical Training School
NAVSEA	Naval Systems Engineering Command
NAVSPECWARCOM	Naval Special Warfare Command
NBC	Nuclear, Biological, and Chemical
NBOE	Non-Gasoline Burning Outboard Engine
NC-MIO	Non Compliant Maritime Interdiction Operations
NDAA	National Defense Authorization Act
NDI	Non-Developmental Item
NEPA	National Environmental Policy Act
NET	New Equipment Training
NGES	Northrop Grumman Electronics Systems
NGG	Next Generation Gunship
NGLDS	Next Generation Leaflet Delivery system
NGLRS	Next Generation Long Range Strike
NGSB	Northrop Grumman Ship Building
NIP	National Intelligence Program
NISH	National Institute of Severely Handicapped
NM	Nautical Miles
NMF	National Mission Force
NOSC	Network Operations Systems Center
NRE	Non-Recurring Engineering
NRT	Near Real Time
NSAV	Non-Standard Aviation
NSCV	Non Standard Commercial Vehicle
NSS	National Security Systems
NSSS (aka TENCAP)	National Systems Support to SOF



## ACRONYMS

NSW	Naval Special Warfare
NSWC	Naval Special Warfare Command
NTISR	Non-Traditional Intelligence, Surveillance, Reconnaissance
NUWC	Naval Undersea Warfare Center
NVD	Night Vision Devices
NVEO	Night Vision Electro-Optic
O&M	Operations and Maintenance
OA/CW	Obstacle Avoidance/Cable Warning
OACE	Open Architecture Computing Environment
OAS	Obstacle Avoidance Sonar (or System)
OAS	Office of Aerospace Studies (Air Force)
OAS	Organization of American States
OBESA	On-Board Enhanced Situational Awareness
OCO	Operator Compartment (ASDS/JMMS)
OCO	Overseas Contingency Operations
ODNI	Office of the Director of National Intelligence
OEF	Operation Enduring Freedom
OEF-CCA	Operation Enduring Freedom - South America Caribbean/Central America
OEF-H	Operation Enduring Freedom - Horn of Africa
OEF-P	Operation Enduring Freedom - Philippines
OEF-TS	Operation Enduring Freedom - Trans Saharan Africa
OEP	Operations Effectiveness Panel
OGA	Other Government Agencies
OIF	Operation Iraqi Freedom
OIO	Offensive Information Operations
OMB	Office of Management and Budget
OMMS	Organizational Maintenance Manual Sets
ONS	Operational Needs Statement
ONS	Operational Needs Statement
OPEVAL	Operational Evaluation
OPG	Operational Planning Guidance
OPTEVOR	Operational Test and Evaluation Force
ORD	Operational Requirements Document
OSA	Open Systems Architecture
OSD	Office of the Secretary of Defense
OT	Operational Test (or Testing)
OT&E	Operational Test and Evaluation
OTA	Operational Test Agency
OTB	Over The Beach
OTI	One Time Inspection
OTRWG	Operational Test Readiness Working Group
OWS	Operation Willing Spirit (SOUTHCOM)
P3I	Pre-Planned Product Improvement
PAB	Personal Address Book (message system)

## ACRONYMS

PAC	Process Analysis Control
PACCM	Psychological Operations Automated Command and Control Module
PAI	Primary Aircraft Inventory
PAM	Penetration Augmented Munitions
PARD	Passive Acoustic Reflection Device
PC	Patrol Coastal
PC	Personal Computer
PCO	Procurement Contracting Officer
PCOR	Primary Contracting Officers' Representative
PDA	Personal Digital Assistant
PDAE	Principle Deputy to the Acquisition Executive
PDM	Program Decision Memorandum
PDR	Pre-Design Refinement
PDR	Preliminary Design Review
PDR	Program Deviation Report
PDS	Psychological Operations Distribution System
PED	Personal Electronic Devices
PED	Processing, Exploitation, Dissemination
PEO	Program Executive Office (or Officer)
PESHE	Programmatic Environment Safety and Occupational Health Evaluation
PFPS	Portable Flight Planning System
PFS	Principle for Safety
PGCB	Precision Guided Canister Bomb
PGM	Precision Guided Munitions
PGSE	Peculiar Ground Support Equipment
PHST	Packaging, Handling, Storage, and Transportation
PIA	Post Independent Analysis
PIA	Primary Training Aircraft Inventory
PIPT	Program Integrated Product Team
PLCCE	Program Life Cycle Cost Estimate
PLED	Polymer Light Emitting Diode
PLTD	Precision Laser Targeting Device
PM	Program (or Project) Manager
PMAC	Program Management Allocation Criteria
PM-MCD	Project Manager for Mines, Countermeasures and Demolitions
PMSOA	Program Specific Memorandum of Agreement
POBS	Psychological Operations Broadcasting System
POE	Program Office Estimate
POG	Psychological Operations Group
POMD	Program Objective Memorandum
POMD	Psychological Operations Media Display
POPAS	PSYOP Planning and Analysis System
POPS	Psychological Operations Print System
POPS	PSYOP Print System

## ACRONYMS

POR	Program of Record
POTUS	President of the United States
PPBE	Planning, Programming, Budget, and Execution
PPHE	Pre-Fragmented Programmable High Explosive
PPI	POM Preparation Instruction
PPIED	Pressure Plate Improvised Explosive Device
PPP	Program Protection Plan
PRK	Photo Refractive Keratectomy
PRTV	Production Representative Test Vehicle
PSAS	Persistent Surface Attack System-of-Systems
PSMOA	Program (or Project) Specific Memorandum of Agreement
PSP	Precision Strike Package
PSR	Precision Sniper Rifle
PSR	Program Support Review
PSYOP	Psychological Operations
PTLD	Precision Target Locator Designator
PTT	Part Task Trainer
QOT&E	Qualification Test and Evaluation/Qualification Operational Test and Evaluation
QRF	Quick Reaction Force
RAA	Required Assets Available (or Availability)
RAM	Reliability, Availability, Maintainability
RAMS	Remote Activated Munitions System
RCM	Requirements Correlation Matrix
RD&A	Research, Development, and Acquisition
RDR	Radar Warning Receiver
RDT&E	Research, Development, Test, and Evaluation
REB	Regional Engagement Branch
REITS	Rapid Exploitation of Innovative Technologies
RF	Radio Frequency
RFF	Request for Forces
RFI	Ready for Issue
RFI	Request for Information
RFIED	Radio Frequency Improvised Explosive Device (IED)
RFT	Ready for Training
RGB	Red, Green, Blue
RGR	Ranger Regiment
RIB	Rigid Inflatable Boat
RIS	Radio Integration System
RMD	Resource Management Decision
RMS	Root-Mean Square
RMWS	Remote Miniature Weather System
ROAR	Rover Over the Horizon Augmented Reconnaissance
ROIP	Radio Over Internet Protocol (IP)
ROMO	Range of Military Operations



## ACRONYMS

ROSES	Reduced Optical Signature Emissions System
RPUAS	Rucksack Portable Unmanned Aircraft System
RRT	Rapid Response Team (CMNS)
RSTA	Reconnaissance Surveillance Target Acquisition
RUT	Realistic Urban Training
RVM	Requirements Validation Matrix
RW	Rotary Wing
RWR	Radar Warning Receivers
RWS	Remote Weapons Station
RWS	Remote Weapons System
S&T	Science & Technology
SADBU	Small and Disadvantaged Business Utilization
SAFC	Special Applications for Contingencies
SAGIS	SOF Air-Ground Interface Simulator
SAGIS	Study Advisory Group
SAHRV	Semi-Autonomous Hydrographic Reconnaissance Vehicle
SAM	System Acquisition Manager (no longer used - now called Assistant Program Manager (APM))
SAMP	Single Acquisition Management Plan
SAP	Special Access Program
SAPR	Sexual Assault Prevention and Response
SAR	Selected Acquisition Report
SARC	Sexual Assault Response Coordinator
SASC	Senate Armed Services Committee
SAT	Simplified Acquisition Threshold
SATCOM	Satellite Communication
SAVE	Small Assault Vehicle Expeditionary
SAW	Small Arms and Weapons
SBIR	Small Business Innovative Research
SBR	System Baseline Review
SBSA	Small Business Set Aside
SBT	Special Boat Team
SBUD	Simulator Block Update
SCAR	SOF Combat Assault Rifle
SCAR	Strike Control and Reconnaissance (Gunship)
SCG	Security Classification Guide
SCI	Sensitive Compartmented Information
SCPC	Single Channel Per Carrier
SCSO	USSOCOM Center for Special Operations
SDD	System Design and Development
SDD	System Development and Demonstration
SDN-M	SOF Deployable Node-Medium
SDS	Sniper Detection System
SDV	Sea, Air, Land (SEAL) Delivery Vehicle

## ACRONYMS

SDV-N	SEAL Delivery Vehicle - Next Generation
SE	Support Equipment
SE	Systems Engineering
SEAD	Suppression of Enemy Air Defenses
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SEP	Systems Engineering Plan
SERE	Survival, Escape, Resistance, and Evasion
SFA	Security Force Assistance
SHARK	SOF High-Speed Agile Reachback Kit
SIC	Special Identifiable (or identifier) Code (message system)
SIE	SOF Information Enterprise
SIE	SOF Information Environment
SIGINT	Signals Intelligence
SIL	Systems Integration Lab
SIPE	Swimming Induced Pulmonary Edema
SIPRNET	Secure Internet Protocol Router Network
SIRCM	Suite of Infrared Countermeasures
SIRFC	Suite of Integrated Radar Frequency Countermeasures
SIT	Squadron Integration Training
SKOS	Sets, Kits and Outfits
SKR	Silent Knight Radar
SLAAMRAM	Surface Launched AMRAAM
SLAM	Selectable Lightweight Attack Munitions
SLDW	SOF logistics Data Warehouse
SLED	SOF Long Endurance Demonstrator
SLEP	Service Life Extension Program
SLNBOE	Submersible Lightweight Non-Gasoline Burning Engine
SMAX	Special Operations Command Multipurpose Antenna, X-Band
SME	Significant Military Equipment
SME	Special Mission Equipment
SME	Subject Matter Expert
SMG	SOF Machine Gun
SMRS	Special Mission Radio System
SNSL	Standard Navy Stocking List
SO	Special Operations
SOAE	Special Operations Acquisition Executive
SOAL	Special Operations Acquisition and Logistics Center
SOALIS	SOAL Information System
SOAL-L/J4	SOAL Directorate of Logistics
SOAL-M	SOAL Director of Management
SOAL-T	SOAL Directorate of Advanced Technology
SOC	Special Operations Craft (Naval Systems)
SOC	Special Operations Command

## ACRONYMS

SOC-R	Special Operations Craft-Riverine
SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOCREB	Special Operations Command Requirements Evaluation Board
SOCS	Special Operation Command Surgeon
SOEP	Special Operations Eye Protection
SOF	Special Operations Forces
SOFARS	Special Operations Federal acquisition regulation Supplement
SOFCA	Solid Oxide Fuel Cell
SOFDK	SOF Demolition Kit
SOFIV	SOF Intelligence Vehicle
SOFLAM	SOF Laser Acquisition Marker
SOFLRD	SOF Laser Range Finder and Designator
SOFM	Special Operations Forces Comptroller (or Special Operations Center for Financial Management)
SOFPARS	SOF Planning and Rehearsal System
SOFSA	SOF Forces Support Activity
SOFTACS	SOF Tactical Assured Connectivity System
SOFTAPS	SOF Tactical Advanced Parachute System
SOFTAV	Special Operations Forces Total Asset Visibility
SOIG	Special Operations Inspector General
SOIS	Special Operations Intelligence System
SOJA	Special Operations Judge Advocate
SOJICC	Special Operations Joint Interagency Collaboration Center
SOKF	Special Operations Knowledge and Futures Center
SOLA	Special Operations Legislative Affairs
SOLL	Special Operations Low Level
SOMPE	Special Operations Mission Planning Environment
SOMROV	Special Operations Miniature Robotic Vehicle
SOMS-B	Special Operations Media Systems B
SONC	Special Operations Center for Networks and Communications
SOO	Statement of Objectives
SOP	Standard Operating Procedure
SOPGM	Standoff Precision Guided Munitions
SOPMOD	SOF Peculiar Modification
SOPMODM-4	SOF Peculiar Modification-M4 Carbine
SORR	Special Operations Force Structure, Requirements, Resources, and Strategic Assessments Center
SORR-J8-O	USSOCOM Operational Test and Evaluation Directorate
SORR-J8-R	USSOCOM Requirements Directorate
SOSE	Special Operations Safety Office
SOST	SCAR Ammo (munitions)
SOST	Special Operations Special Technology
SOTD	Special Operations Technology Development
SOTVS	Special Operations Tactical Video System



## ACRONYMS

SOVAS HHI	Special Operations Visual Augmentation System Hand Held Imagers
SOW	Special Operations Wing
SOW	Statement of Work
SPC	Systems Production Certification
SPEAR	Senior Procurement Executive
SPEAR	SOF Personal Equipment Advanced Requirements
SPG	Strategic Planning Guidance
SPIKE	Shoulder Fired Smart Round
SPP	Strategic Planning Process
SPR	Special Purpose Rifle
SPTC	SOF Pre-Deployment Training Cycle
SQT	SEAL Qualification Training
SR	Surveillance and Reconnaissance
SRATS	Specialized Reconnaissance Assault Transport System
SRC	Special Reconnaissance Capabilities
SRC	Systems Readiness Center
SRCP	Supplemental Resource Collection Process
SRTC	Short Infrared Sensor
SSAVIE	SOF Sustainment Asset Visibility and Information Exchange
SSC	Surface Support Craft
SSE	Sensitive Site Exploitation
SSGN	Nuclear Guided Missile Submarine
SSL	System Safety Lead
SSO	Site Security Office
SSR	Sniper Support Rifle
SSRA	System Safety Risk Assessment
SSSAR	Solid State Synthetic Aperture Radar
SSSP	Steady State Security Posture
SSTG	SOF SIGINT Training Group
START	Special Threat Awareness receiver/Transmitter
STC	SOF Tactical Communication
STD	Swimmer Transport Device
STET	Strategic Technology Evaluation Team
STRB	Strategic Technology Review Board
SUAS	Small Unmanned Aerial System
SVEST	Suicide Vest
SVMCMC	Small Versatile Maritime Mobility Craft
SW	Short-Wave
SWALIS	Special Warfare Automated Logistic Information System
SWAP	Size, Weight, and Power
SWCC	Special Warfare Combatant-craft Crewman
SWCS	Shallow Water Combat Submersible
SWIR	Short Wave Infrared Radar
SWIR	Short-Wave Infrared Sensor

## ACRONYMS

SWORDS	Special Weapons Observation and Remote Direct-Action System
SYDET	Sympathetic Detonator
T&E	Test and Evaluation
TAC-A	Tactical Air Coordinator - Airborne
TACLAN	Tactical Local Area Network
TACTICOMP	Tactical Computer
TACTI-NET	Tactical Network
TAPO	Technology Application Program Office
TAT	To-Accompany Troops
TAV	Technical Availabilities
TAV	Total Asset Visibility
TAV	Total Asset Visibility
TAWS	Terrain Awareness and Warning System
TBI	Traumatic Brain Injury
TC	Transport Compartment (ASDS/JMMS)
TCCC	Tactical Combat Casualty Care
TCT	Time Critical Target
TCV	Transit Case Variant
TDA	Technical Direction Agent
TDE	Technology Development Exploitation
TDFD	Time Delay Firing Device
TDMA	Time Division Multiple Access
TDO	Technology Development Objective
TDO	Technology Development Objectives
TDS	Technology Development Strategy
TDS	Technology Development Strategy
TEI	Technology Exploitation Initiative
TEMP	Test and Evaluation Master Plan
TENCAP	Tactical Exploitation of National Capabilities (also NSSS)
TERESA	Tactical Edge and Response for Enhanced Situation Awareness
TES/TEZ	Target Engagement Zones (kill boxes)
TES/TEZ	Test and Evaluation Strategy
TF/TA	Terrain Following/Terrain Avoidance (Radar)
THDD	Tactical Handheld Digital Devices
TIC	Technology Infusion Cell
TIC	Troops in Contact
TILO	Technical Industrial Liaison Officer
TIPT	Test Integrated Product Team
TMR	Total Munitions Requirement
TO	Technical Order
TOR	Terms of Reference
TOS	Time on Station
TOT	Time on Target
TPE	Theater Provided Equipment

## ACRONYMS

TPED	Tactical Processing, Exploitation, and Dissemination
TR	Technical Representative
TRL	Technology Readiness Level
TRR	Test Readiness Review
TRS	Tactical Radio System
TSOC	Theater Special Operations Command
TSOST	Theater Special Operations Surgical Teams
TSP	Time Sensitive Planning
TST	Time Sensitive Target
TST	Trans Sahara or Trans Saharan (as in JSOTF-TS)
TT&L	Tagging, Tracking & Locating
TTHM	Titanium Tilting Helmet Mount
TTP(s)	Tactics, Techniques, and Procedures (sometimes Targeting is included)
TUTC	Terrorism, Unconventional Threats, and Capabilities (Subcommittee)
U.S.C.	United States Code
UAGS	Unattended Ground Sensor
UARRSI	Universal Aerial Refueling Receptacle Slipway
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UBA	Underwater Breathing Apparatus
UCA	Undefinitized Contract Action
UCMM	Undersea Clandestine Maritime Mobility
UCP	Unified Command Plan
UCP	Unsolicited Congressional Plus-Up
UCR	Unit Cost Report
UDA	Urgent Deployment Acquisition
UGV	Unmanned Ground Vehicle
UHF	Ultra High Frequency
UHMS	Undersea and Hyperbaric Medicine Society
UID	Unique Identification Device
UJTL	Universal Joint Task List
UK	United Kingdom
ULT	Unit Level Training
UMI	User Master Interface
US	United States
USASOC	U.S. Army Special Operations Command
USD (AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USG	U.S. Government
USSOCOM	United States Special Operations Command
USTEDA	USSOCOM Table of Equipment and Distribution Allowances
UTC	Unit Type Code
UV	Unmanned Vehicles
UVT	Unmanned Vehicle Targeting
UW	Unconventional Warfare



## ACRONYMS

V/STOL	Vertical/Short Take-Off and Landing
VAS	Victim Advocate
VAS	Visual Augmentation System
VB	Variable Ballast
VBIED	Vehicle-Borne Improvised Explosive Device
VBL	Visible Bright Lights
VBSS	Visit, Board, Search, and Seizure (Maritime)
VBT	Variable Ballast Tank
VCUAS	Vehicle-Craft Launched Unmanned Aerial System
VEO	Violent Extremist Organization
VESTA	Vibro-Electronic Signature Target Analysis
VHF	Very High Frequency
VSAT	Very Small Aperture Terminal
VSD	Variable Speed Drogue
VSM	Very Small Munitions
VSWMCM	Very Shallow Water Mine Countermeasures
VTC	Video Teleconferencing
WBS	Work Breakdown Structure
WIFI	Wireless Fidelity
WIN-T	Warfighter Information Network - Tactical
WIRED	Wind Tunnel Integrated Real Time In the Cockpit/Real Time Out of the Cockpit Experiments and Demonstrations
WMD	Weapons of Mass Destruction
WOT	War on Terrorism
WRM	War Reserve Materials
WRT	With Regards To
WSADS	Wind Supported Air Delivery System
WTC	World Trade Center
XML	Extensible Mark-up Language
ZBT	Zero Base Transfer

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>										
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	PE 1160401BB: <i>Special Operations Technology Development</i>										
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	26.600	26.545	26.591	-	26.591	28.411	28.900	29.398	28.564	Continuing	Continuing
S100: <i>SO Technology Development</i>	26.600	26.545	26.591	-	26.591	28.411	28.900	29.398	28.564	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element enables USSOCOM to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects that may not otherwise be affordable within MFP-11. Applying small incremental amounts of investments to DoD, other government agencies, and commercial organizations allows USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire emerging technologies for Special Operations Forces. This project provides an investment strategy for USSOCOM to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, human endurance and sensory performance, and technology development objectives.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	30.606	26.545	29.350	-	29.350
Current President's Budget	26.600	26.545	26.591	-	26.591
Total Adjustments	-4.006	-	-2.759	-	-2.759
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-3.227	-			
• SBIR/STTR Transfer	-0.779	-			
• Other Adjustment	-	-	-2.759	-	-2.759

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S100: *SO Technology Development*

Congressional Add: *Flashlight Soldier-to-Soldier Combat Identification System (FSCIS)*

Congressional Add: *STAR-TEC Partnership Program*

Congressional Add Subtotals for Project: S100

Congressional Add Totals for all Projects

	<b>FY 2010</b>	<b>FY 2011</b>
	4.481	-
	1.594	-
	6.075	-
	6.075	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160401BB: <i>Special Operations Technology Development</i>
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**Change Summary Explanation**

Funding:

FY2010 Decrease of \$4.006 million is due to a transfer of funds to Small Business Innovative Research decrease (-\$.779 million), a reprogramming to higher command priorities (-\$.037 million), and a reprogramming action into PE 1160402BB, Special Operations Advanced Technology Development (-\$3.190 million).

FY2011 None.

FY2012 Decrease of \$2.759 million is due to a transfer of resources into Rapid Exploitation of Innovative Technology, PE 1160402BB, Special Operations Advanced Technology Development (-\$2.521 million), to reflect the correct budget activity and Department of Defense (DoD) Efficiency Initiatives (-\$.238 million).

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>				<b>PROJECT</b>			
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>				PE 1160401BB: <i>Special Operations Technology Development</i>				S100: <i>SO Technology Development</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S100: <i>SO Technology Development</i>	26.600	26.545	26.591	-	26.591	28.411	28.900	29.398	28.564	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11. Small incremental co-investments with DoD, other government agencies, and commercial organizations allows USSOCOM to influence the schedule and direction of technology developments, emerging technologies, and capabilities for Special Operations Forces (SOF), with significant economies of investment. This USSOCOM investment strategy is used to link technology opportunities with USSOCOM capability deficiencies, capability objectives, technology thrust areas, and technology objectives. Requirements in these areas may be advertised to industry and government research and development agencies via broad area announcements and calls for white papers. Sub-projects include:

- Rapid Exploitation of Innovative Technologies (REITS). REITS provides USSOCOM the ability to identify, assess and exploit emerging innovative technologies for SOF capability deficiencies and expedite technology transitions from the laboratory to operational use. These technologies provide new transformational capabilities and immediate operational impacts, while providing a compass for the direction of future SOF procurement. REITS supports both top-down and bottom-up approaches for USSOCOM Components, Theater Special Operations Commands and Special Operations Task Forces to articulate innovative technology recommendations. Requirements are submitted to USSOCOM for review and approval. The approval process is through the USSOCOM Quick Reaction Board (USSOCOM QRB). The USSOCOM QRB is chaired by the USSOCOM Deputy Commander. Members include the Director of Operations, Director of Requirements, the USSOCOM Acquisition Executive, Science Advisors, and the Interagency Task Force Director. The tenets of the QRB are to promote speed, evolution, collaboration, and engagement in three technology Capability Areas: 1) Command, Control, Communications, and Computers (C4), Intelligence, Surveillance and Reconnaissance (ISR), and Sensors; 2) Mobility; and 3) SOF Warrior Survivability Target Engagement and Lethality and Medical. An individual Technology Activity can be submitted from every echelon of command through the USSOCOM "HardEdge" portal for initial evaluation and distribution to industry, academia, laboratories or our in-country mobile technology complex to build the solution. The process is detailed in a USSOCOM Directive, "Rapid Technology Support to Special Operations."
- C4, ISR, and Sensors Capability Area. Develop technologies that provide SOF with improved situational awareness and communications and computer resources in all environments. Develop and discover technologies offering significant improvements in areas such as: enhanced sensors; enhanced command and control architectures and solutions; information consolidation, dissemination, and coordination; improved man-machine interface; covert secure communications; and effective antenna solutions.
- Mobility, Power and Energy Capability Area. Exploit and develop technologies to improve the performance and survivability, and reduce the detectability of SOF mobility assets. Develop and discover technologies offering significant improvements in ground, sea, and air mobility areas such as: increased range/operational environment; improved durability; power/propulsion systems including new fuel sources, and reduced signature.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160401BB: <i>Special Operations Technology Development</i>	<b>PROJECT</b> S100: <i>SO Technology Development</i>
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- SOF Warrior Survivability Target Engagement and Lethality and Medical Capability Area. Exploit and develop technologies to increase the SOF warrior's survivability and performance. Develop and discover technologies offering significant improvements in areas such as: improved target identification and engagement, human identification, electro-optical vision systems, sensor fusion, human endurance, SOF medical equipment, operator safety, and improved weapons and accessories.
- Special Operations Technology Development Sub-Project: This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11.
- Tagging, Tracking, and Locating (TTL) Sub-Project: TTL technologies are a key element in the ability of SOF to find, fix, and finish targets in overseas contingency operations (OCO). This sub-project invests in critical science and technology efforts to improve operational capabilities for TTL high value individuals and objects in support of the OCO.
- Classified Sub-Project (provided under separate cover).
- The following technology activities were added by congress in FY 2010:
- Flashlight Soldier-to-Soldier Combat ID System: Continue to develop a flashlight soldier-to-soldier combat identification system.
- STAR TEC Partnership Program: Establish an ultra-responsive, local resource tied to academia, science and industry to meet unique SOF requirements.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<p><b>Title:</b> Rapid Exploitation of Innovative Technologies for SOF (REITS) - C4, ISR, and Sensors Capability Area</p> <p><b>FY 2010 Accomplishments:</b> Continued the Advanced Distributed Aperture System Joint Concept Technology Demonstration and development of the Advanced Dual Band Night Vision Goggles. Completed the Enhanced Hostile Detection System. Established capabilities that can be exploited by short-wave infrared sensors and transitioned to an acquisition program. Prototyped flexible advanced optics and developed new color digital night vision technology. Developed a software solution for super resolution residing on focal plane arrays.</p> <p><b>FY 2011 Plans:</b> Develops advanced sensors, multi-spectral optics, high bandwidth technologies and multi-level security systems.</p>	7.026	9.799	-
<p><b>Title:</b> REITS - Mobility, Power and Energy Capability Area</p> <p><b>FY 2010 Accomplishments:</b></p>	1.500	2.500	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160401BB: <i>Special Operations Technology Development</i>		<b>PROJECT</b> S100: <i>SO Technology Development</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Continued to test the Maverick unmanned aerial vehicle (UAV) using various payloads. Started developmental work on a Counter UAV Pulsed Energy Projectile. <b>FY 2011 Plans:</b> Pursues low observable and counter low observable technologies to develop advanced lightweight armor and materials. Investigates multi-domain mobility platforms.				
<b>Title:</b> REITS - SOF Warrior Survivability Target Engagement and Lethality and Medical Capability Area <b>FY 2010 Accomplishments:</b> Conducted concept studies to explore and validate mission-based experiments. Continued application of a blast-wave sensor for the detection of blast overpressure in the screening of mild traumatic brain injury. Developed a prototype altitude readiness management system decision aid, which will monitor the efficacy of pulse waves for mobile triage capability for SOF Medics. Studied health hazards of breaching charges in complex environments. <b>FY 2011 Plans:</b> Develops far-forward Tactical Combat Casualty Care kits. Pursues rapid assays/diagnostics, reduces operator load, and provides advanced protection.		2.000	2.100	-
<b>Title:</b> Special Operations Technology Development <b>FY 2012 Plans:</b> Pursue reduced signature technologies; develop advanced lightweight armor and materials; and begin development of multi-domain mobility platforms, long duration small form factor power supplies, alternative fuel power systems and "green" energy devices. Continue to advance technologies for combat medical equipment and tactics. Continue pursuit of methods to reduce operator load and provide advanced protection. Develop technologies for improved Man-Machine Interface and functionality of Target Engagement Systems and investigate technologies that can be applied to increase human performance and endurance; pursue enhancements to technologies that can aid in detection of enemy intentions and movement. Continue further development of Multi-spectral Optics, Digital Night Vision, Digital Fusion, Short-Wave Infrared Radar Characterization, Power Systems and Advanced Optics transition mature technology into programs of record.		-	-	11.944
<b>Title:</b> Tagging, Tracking, and Locating Technologies (TTL) <b>FY 2010 Accomplishments:</b>		8.286	10.109	12.567

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160401BB: <i>Special Operations Technology Development</i>	<b>PROJECT</b> S100: <i>SO Technology Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
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<p>Specific objectives, priorities, and technical approaches are classified. Continued projects to exploit nanotechnology, biotechnology, chemistry, and microelectronics for application to TTL systems. Initiated projects identified in the USSOCOM/DoD Roadmap. Supported the Joint Chiefs of Staff TTL Quick Look Capability Assessment.</p> <p><b>FY 2011 Plans:</b> Specific objectives, priorities, and technical approaches are classified. Continues projects to exploit nanotechnology, biotechnology, and chemistry for application to TTL systems. Initiates projects identified in the USSOCOM/DoD Roadmap. Supports the Joint Chiefs of Staff TTL Quick Look Capability Assessment.</p> <p><b>FY 2012 Plans:</b> Specific objectives, priorities, and technical approaches are classified. Continue projects to exploit nanotechnology, biotechnology, and chemistry for application to TTL systems. Initiate projects identified in the USSOCOM/DoD Roadmap. Support the Joint Chiefs of Staff TTL Quick Look Capability Assessment.</p> <p><b>Title:</b> Classified</p> <p><b>FY 2010 Accomplishments:</b> Details provided under separate cover.</p> <p><b>FY 2011 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2012 Plans:</b> Details provided under separate cover.</p>	1.713	2.037	2.080
<b>Accomplishments/Planned Programs Subtotals</b>	20.525	26.545	26.591

	FY 2010	FY 2011
<p><b>Congressional Add:</b> Flashlight Soldier-to-Soldier Combat Identification System (FSCIS)</p> <p><b>FY 2010 Accomplishments:</b> Continued to provide technology that reduces friendly fire casualties and increases combat effectiveness.</p>	4.481	-
<p><b>Congressional Add:</b> STAR-TEC Partnership Program</p> <p><b>FY 2010 Accomplishments:</b> Established an ultra-responsive, assessment capability that is tied to academia, science and industry to meet unique SOF requirements.</p>	1.594	-
<b>Congressional Adds Subtotals</b>	6.075	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160401BB: <i>Special Operations Technology Development</i>	<b>PROJECT</b> S100: <i>SO Technology Development</i>

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

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160407BB: <i>SOF Medical Technology Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.390	-	-	-	-	-	-	-	-	Continuing	Continuing
S275: <i>SOF Medical Technology</i>	2.390	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides studies, non-system exploratory advanced technology development, and evaluations. The focus is on medical technologies, centering on physiologic, psychologic, and ergonomic factors affecting the ability of SOF to perform their missions. Special operations requires unique approaches to combat casualty care, medical equipment, and other life support capabilities including life support for high altitude parachuting, combat swimming, and other SOF-unique missions. This program provides guidelines for the development of selection and conditioning criteria, thermal protection, decompression procedures, combat casualty procedures, and life support systems. The program supports the development and evaluation of biomedical enhancements for the unique requirements of all SOF in the conduct of their diverse missions.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	2.390	-	-	-	-
Current President's Budget	2.390	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-	-	-

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S275: *SOF Medical Technology*

Congressional Add: *Personalized Medicine Initiative*

	FY 2010	FY 2011
Congressional Add Subtotals for Project: S275	2.390	-
Congressional Add Totals for all Projects	2.390	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>	PE 1160407BB: <i>SOF Medical Technology Development</i>

**Change Summary Explanation**

Funding:

FY2010 None.

FY2011 None.

FY2012 None.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>				<b>PROJECT</b>			
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 2: <i>Applied Research</i>				PE 1160407BB: <i>SOF Medical Technology Development</i>				S275: <i>SOF Medical Technology</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S275: <i>SOF Medical Technology</i>	2.390	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides studies, non-system exploratory advanced technology development, and evaluations. The focus is on medical technologies, centering on physiologic, psychologic, and ergonomic factors affecting the ability of SOF to perform their missions. Special operations requires unique approaches to combat casualty care, medical equipment, and other life support capabilities including life support for high altitude parachuting, combat swimming, and other SOF-unique missions. This program provides guidelines for the development of selection and conditioning criteria, thermal protection, decompression procedures, combat casualty procedures, and life support systems. The program supports the development and evaluation of biomedical enhancements for the unique requirements of all SOF in the conduct of their diverse missions.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011
<b>Congressional Add:</b> Personalized Medicine Initiative	2.390	-
<b>FY 2010 Accomplishments:</b> Developed and applied next-generation DNA sequencing technology to sequence the genomes of human subjects with a range of diseases and inherited disorders, in an effort to better understand the genetic basis of disease.		
<b>Congressional Adds Subtotals</b>	2.390	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>			PE 1160402BB: <i>Special Operations Advanced Technology Development</i>								
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	71.549	30.806	35.242	-	35.242	39.684	40.390	41.104	41.849	Continuing	Continuing
S200: <i>SO Advanced Technology Development</i>	71.549	30.806	35.242	-	35.242	39.684	40.390	41.104	41.849	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element conducts rapid prototyping and Advanced Technology Demonstrations (ATDs). ATDs provide a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by Special Operations Forces users. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The program element includes FY 2010 Overseas Contingency Operations funding for SOF Combat Identification efforts and also addresses projects that are a result of unique joint special mission or area-specific needs for which a few-of-a-kind prototypes must be developed on a rapid response basis, or are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	56.727	30.806	32.710	-	32.710
Current President's Budget	71.549	30.806	35.242	-	35.242
Total Adjustments	14.822	-	2.532	-	2.532
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	15.735	-			
• SBIR/STTR Transfer	-0.913	-			
• Other Adjustments	-	-	2.532	-	2.532

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S200: *SO Advanced Technology Development*

Congressional Add: *Partnership for Defense Innovation Wi-Fi Laboratory Testing and Assessment Center*

Congressional Add: *Field Experimentation Program for Special Operations*

Congressional Add: *Advanced Distributed Aperture System (ADAS)*

Congressional Add: *Affordable Miniature Foliage Penetration (FOPEN) Radar for Special Operations Craft - Riverine*

	FY 2010	FY 2011
	2.788	-
	1.593	-
	1.036	-
	2.788	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>
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**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

	FY 2010	FY 2011
Congressional Add: <i>Optical Surveillance Equipment</i>	1.992	-
Congressional Add: <i>Chemical, Biological, Radiological and Nuclear (CBRN) Detection Unmanned Aircraft</i>	1.593	-
Congressional Add: <i>Antennas and other Carbon Nano Tube (CNT) Devices for Intelligence/Special Military</i>	2.987	-
Congressional Add: <i>Tiger Moth Air-Launched Off Board Sensing Small Unmanned Aerial System</i>	1.593	-
Congressional Add: <i>Intelligence, Surveillance, and Reconnaissance Global Sensor Architecture</i>	1.593	-
Congressional Add: <i>Increased Helicopter Situational Awareness and Survivability</i>	9.959	-
Congressional Add: <i>Helicopter Cable Warning and Obstacle Avoidance</i>	1.195	-
Congressional Add Subtotals for Project: S200	29.117	-
Congressional Add Totals for all Projects	29.117	-

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$14.822 million is due to a reprogramming to higher command priorities (-\$.043 million), reprogramming actions for Foliage Penetration Reconnaissance, Surveillance, Targeting and Engagement Radar (\$3.583 million), FY 2010 Overseas Contingency Operations Prior Approval Reprogramming Action for Urgent Theater Technology Development (FY10-24-PA dated 20 September 2010) to support SOF Combat Identification projects (\$11.000 million), Small Business Innovative Research reduction (-\$.913 million), and the following congressional add: Helicopter Cable Warning and Obstacle Avoidance (\$1.195 million).

FY 2011 None.

FY 2012 Increase of \$2.532 million is due to REITS resources transferred from PE 1160401BB, Special Operations Technology Development, to reflect the proper budget activity.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>				<b>PROJECT</b>			
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>				PE 1160402BB: <i>Special Operations Advanced Technology Development</i>				S200: <i>SO Advanced Technology Development</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S200: <i>SO Advanced Technology Development</i>	71.549	30.806	35.242	-	35.242	39.684	40.390	41.104	41.849	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project provides for rapid prototyping, Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations. It is a means for demonstrating and evaluating the utility of emerging/advanced technologies in operationally relevant environments with Special Operations Forces (SOF) users. This project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. Evaluation results often facilitate the initiation of new programs and the insertion of appropriate technologies to acquisition programs. The element also addresses unique, joint special mission or area-specific needs for which a few rapid prototypes must be developed on a responsive basis, or are of sufficient time sensitivity to accelerate prototyping efforts of a normal acquisition program in any phase. Sub-projects include:

- Rapid Exploitation of Innovative Technologies (REITS). This sub-project supports both top-down and bottom-up approaches for USSOCOM Components, Theater Special Operations Commands and Special Operations Task Forces to articulate innovative technology recommendations. Concepts, ideas, and needs will be submitted to HQ USSOCOM for review and/or approval as appropriate. The tenets promote speed, evolution, collaboration, and engagement between the SOF user and the technical problem solver. Individual projects or ideas can be submitted from every echelon of command. Initial evaluation clears new ideas for distribution to industry, academia, laboratories or SOF in-country mobile technology repair complexes that have the capability to augment or build solutions in-place. The USSOCOM directive, "Rapid Technology Support to Special Operations" outlines the processes to identify, assess and exploit emerging innovative technologies for SOF in the following Capability Areas: 1) Command, Control, Communications, and Computers (C4), Intelligence, Surveillance and Reconnaissance (ISR), and Sensors; 2) Mobility, Power, and Energy; 3) SOF Warrior Survivability; and 4) Weapons and Munitions. Technical activities in these areas will provide new operational capabilities and will mature technologies to better shape future SOF procurements.
- C4, ISR, and Sensors Capability Area. Exploit emerging technologies to conduct ATDs that provide SOF with robust C4 and intelligence capabilities such as, but not limited to, ensuring uninterrupted information exchange, influencing situations to support mission accomplishments, reducing an adversary's ability to use information, increasing sensory performance, improving antenna technologies, and achieving near real-time data fusion for sensor systems.
- Mobility, Power, and Energy Capability Area. Exploit emerging technologies to conduct ATDs such as, but not limited to, providing SOF with durable, survivable mobility capabilities in high threat areas; enhanced situational awareness; reconnaissance and direct action in high threat areas using unmanned systems, improved power system technologies for signature reduction, longer endurance, or smaller size; and advanced energy storage for vehicles, sensors, and operational needs.
- SOF Warrior Survivability Capability Area. Exploit emerging technologies to conduct ATDs that provide SOF with increased survivability and performance to enhance individual operator capabilities including, but not limited to, ballistic protection, personal equipment, and night vision and optics systems.
- Weapons and Munitions Capability Area. Exploit technologies such as tunable weapons, reduce signature capability, and reduce size and weight.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	<b>PROJECT</b> S200: <i>SO Advanced Technology Development</i>

- Special Operations Special Technology Development Sub-Project. This sub-project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events.
  - Joint Task Force SWORD Sub-Project. Explore use of experimental technologies to provide emergent technologies to quick response task force deployments.
  - Tagging, Tracking, and Locating (TTL) Technologies Sub-Project. Exploit emerging technologies as identified in the TTL users' Capabilities Based Assessments. Exploit emerging technologies to locate and track targets or items of interest. Pursue advanced development and prototyping of TTL capabilities that have been proven to be feasible and operationally useful.
  - National to Theater Transition Sub-Project. Conduct additional testing required to transition items from national forces to theater forces.
  - Combat Identification (CID), Overseas Contingency Operations (OCO). Radio Frequency (RF) patch provides an RF technology, ground-to-ground based, combat ID system that will reduce friendly fire casualties and increase combat effectiveness.
  - Classified Sub-Project (provided under separate cover).
  - Foliage Penetration Reconnaissance, Surveillance, Targeting and Engagement Radar (YMQ18A Unmanned Aerial Vehicle). Conductes planning, payload integration, air vehicle improvements, and training in support of multiple operational demonstrations to evaluate the military utility of the YMQ18A unmanned aerial vehicle.
- The following technology activities were added by Congress for FY 2010:
- Partnership for Defense Innovation Wi-Fi Test Laboratory. Rapidly evaluated and integrated commercial-off-the-shelf (COTS) and government-off-the-shelf (GOTS) secure wireless network technologies relevant to the SOF Warrior.
  - Field Experimentation Program for Special Operations. Prototyped and evaluated manned-unmanned platform and sensor networks to articulate new concepts of operation and employment for SOF.
  - Advanced Distributed Aperture System (ADAS) Hostile Fire Indicating System (HFIS). Developed and initiated acquisition of the ADAS HFIS.
  - Affordable Miniature Foliage Penetrating Radar for Special Operations Craft-Riverine. Developed radar capable of penetrating the foliage in riverine and coastal environments at ranges consistent with mission parameters.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>	<b>PROJECT</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	S200: <i>SO Advanced Technology Development</i>

- Optical Surveillance Equipment. This system will allow SOF to reproduce large-format/high-resolution calibration patterns used for performance analysis of surveillance systems in black and white, color, and multi-spectral bands.
  
- Chemical, Biological, Radiological, and Nuclear (CBRN) Detection Unmanned Aircraft. Assess the capability and feasibility of operating a highly developed CBRN Detection Payload integrated in a Vertical Take-off/Landing (VTOL) Unmanned Aerial Vehicle (UAV).
  
- Antennas and other Carbon Nano Tube (CNT) Devices for Intelligence/Special Military. Research, develop and demonstrate antennas and other devices for specialized intelligence and military communications.
  
- Tiger Moth Air-Launched Off Board Sensing Small Unmanned Aerial System (UAS). Demonstrate an inexpensive, compact UAV that can be launched from many types of vehicles (ground, sea and air) to enhance the capabilities and situational awareness of the warfighter.
  
- Intelligence, Surveillance, and Reconnaissance Global Sensors Architecture. Develop architecture to achieve near real-time data fusion for deployed sensor systems.
  
- Increase Helicopter Situational Awareness and Survivability. Continue to develop the Advanced Distributed Aperture System (ADAS) program (sensors, 3-D audio, and ADAS processor).
  
- Helicopter Cable Warning and Obstacle Avoidance. This system allows aircraft to perform evasive actions, significantly increasing the aircrew's probability of survival during a hostile fire engagement.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<p><b>Title:</b> Rapid Exploitation of Innovative Technology (REITS) for SOF Sub-Project</p> <p><b>FY 2012 Plans:</b> Starting with FY 2012, REITS will be executed only in PE 1160402BB. Continue additional demonstrations and evaluations of C4I technologies; warrior survivability improvements; and mobility, power and energy and mobile technology repair center projects. Further develop and insert into existing programs advanced processing techniques and persistent surveillance. Continue advanced development of signature reduction technologies. Insert lightweight armor and materials into existing acquisition efforts. Continue to exploit technologies that reduce the load of the operator. Insert into existing programs advanced protection and visualization, and training systems.</p>	-	-	10.310
<p><b>Title:</b> REITS Sub-Project - C4, ISR, and Sensors Capability Area</p> <p><b>FY 2010 Accomplishments:</b> Continued the Harbor Intruder Joint Concept Technology Demonstration (JCTD). Developed a secure wireless headset. Developed and transitioned the Operational 3D JCTD. Initiated the Sea Tracker JCTD and Joint UAS Precision Targeting JCTD.</p> <p><b>FY 2011 Plans:</b></p>	2.752	6.329	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	<b>PROJECT</b> S200: <i>SO Advanced Technology Development</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Develops advance processing techniques, persistent surveillance, advanced multi-function defined radios.				
<p><b>Title:</b> REITS Sub-Project - Mobility, Power and Energy Capability Area</p> <p><b>FY 2010 Accomplishments:</b> Integrated the Combat Autonomous Mobility System into SOF mobility platforms for intelligence, surveillance and reconnaissance; developed a prototype Small Assault Vehicle Expeditionary (SAVE) Light Combatant Craft. Developed a multi-fuel outboard engine. Investigated application of graphite foam for heat transfer applications. Developed fuel cells for all environment capable variant.</p> <p><b>FY 2011 Plans:</b> Pursues low-observable and counter low-observable technologies. Develops advanced lightweight armor and materials. Investigates multi-domain mobility platforms.</p>		3.000	3.000	-
<p><b>Title:</b> REITS Sub-Project - SOF Warrior Survivability Technologies Capability Area</p> <p><b>FY 2010 Accomplishments:</b> Continued shock and vibration mitigation activity and diver/crewman thermal protection technology. Investigated state of technology of transparent armor. Pursued use of superhydrophobics.</p> <p><b>FY 2011 Plans:</b> Pursues technologies to reduce the load of the operator and provide advanced protection and visualization.</p>		2.500	2.750	-
<p><b>Title:</b> REITS Sub-Project - Weapons and Munitions Capability Area</p> <p><b>FY 2010 Accomplishments:</b> Optimized small arms signature suppression.</p> <p><b>FY 2011 Plans:</b> Pursues precision guided munitions and tunable weapons technologies.</p>		2.394	2.250	-
<p><b>Title:</b> Special Operations Special Technology Sub-Project</p> <p><b>FY 2012 Plans:</b> Develop and insert technology into existing programs. Project technologies include, but are not limited to, reduced signature profiles; improved weapons, lightweight armor and materials; alternative power systems; "green" sustainable energy devices; long duration, reduced size, high output power supplies; and technologies that reduce the load of the operator.</p>		-	-	6.835
<p><b>Title:</b> Joint Task Force SWORD Sub-Project</p> <p><b>FY 2011 Plans:</b></p>		-	0.199	0.199



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	<b>PROJECT</b> S200: <i>SO Advanced Technology Development</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Explores the use of experimental technology to provide emergent technology to quick response task force deployments. <b>FY 2012 Plans:</b> Continue to explore the use of experimental technology to provide emergent technology to quick response task force deployments.				
<b>Title:</b> Tagging, Tracking, and Locating Technologies (TTL) Sub-Project <b>FY 2010 Accomplishments:</b> Continued projects from the USSOCOM/DoD TTL project databases that exploit and integrate TTL proven relevant technologies. Exploited emerging technologies to locate and track targets or items of interest. Project will include leveraging and cooperative efforts with DoD, other government agencies and industry. <b>FY 2011 Plans:</b> Continues projects from the USSOCOM/DoD TTL project databases that exploit and integrate TTL proven relevant technologies. Exploits emerging technologies to locate and track targets or items of interest. Projects will include leveraging and cooperative efforts with DoD, other government agencies and industry. <b>FY 2012 Plans:</b> Continue projects from the USSOCOM/DoD TTL project databases that exploit and integrate TTL proven relevant technologies. Exploits emerging technologies to locate and track targets or items of interest. Projects will include leveraging and cooperative efforts with DoD, other government agencies and industry.		11.920	12.369	13.919
<b>Title:</b> National to Theater Transition <b>FY 2010 Accomplishments:</b> Conducted additional developmental testing and evaluation required on various equipment items being transitioned to the SOF Theater Forces. Items included, but were not limited to, the .45 caliber automatic Colt pistol and the ground-launched Precision Strike Griffin Missile. <b>FY 2011 Plans:</b> Conducts additional testing and evaluation required on various equipment items being transitioned to the SOF Theater Forces. <b>FY 2012 Plans:</b> Conduct additional testing and evaluation required on various equipment items being transitioned to the SOF Theater Forces.		1.889	1.935	1.966
<b>Title:</b> Combat Identification (CID), Overseas Contingency Operations <b>FY 2010 Accomplishments:</b>		11.000	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	<b>PROJECT</b> S200: <i>SO Advanced Technology Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
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Designed, developed, fabricated, tested, demonstrated performance and conducted a Producibility Demonstration for the Combat ID RF patch system.			
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<p><b>Title:</b> Classified Sub-Project</p> <p><b>FY 2010 Accomplishments:</b> Details provided under separate cover.</p> <p><b>FY 2011 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2012 Plans:</b> Details provided under separate cover.</p>	1.394	1.974	2.013
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<p><b>Title:</b> Foliage Penetration Reconnaissance, Surveillance, Targeting and Engagement Radar (YMQ18A Unmanned Aerial Vehicle)</p> <p><b>FY 2010 Accomplishments:</b> Integrated the Combat Autonomous Mobility System (CAMS) into SOF mobility platforms for Intelligence, Surveillance, and Reconnaissance. Developed a multi-fuel outboard engine. Investigated application of graphite foam for heat transfer applications. Investigated the combination of renewable and legacy power systems to meet future goals of providing sustainable power while reducing the logistical footprint required to sustain troops. Conducted planning, payload integration, air vehicle improvements, and training in support of multiple operational demonstrations to evaluate the military utility of the YMQ18A unmanned aerial vehicle.</p>	5.583	-	-
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<b>Accomplishments/Planned Programs Subtotals</b>	42.432	30.806	35.242
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	FY 2010	FY 2011
<p><b>Congressional Add:</b> Partnership for Defense Innovation Wi-Fi Laboratory Testing and Assessment Center</p> <p><b>FY 2010 Accomplishments:</b> Rapidly evaluated and integrated COTS and GOTS secure wireless network technologies relevant to the SOF Warrior.</p>	2.788	-
<p><b>Congressional Add:</b> Field Experimentation Program for Special Operations</p> <p><b>FY 2010 Accomplishments:</b> Effort focused on joint, coalition efforts exploiting emerging commercial communications, networks, and data handling solutions.</p>	1.593	-
<p><b>Congressional Add:</b> Advanced Distributed Aperture System (ADAS)</p>	1.036	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 United States Special Operations Command		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT		
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	S200: <i>SO Advanced Technology Development</i>		
		<table border="1"> <thead> <tr> <th>FY 2010</th> <th>FY 2011</th> </tr> </thead> </table>	FY 2010	FY 2011
FY 2010	FY 2011			
<b>FY 2010 Accomplishments:</b> Added the Hostile Fire Indicating System capability to the ADAS.				
<b>Congressional Add:</b> Affordable Miniature Foliage Penetration (FOPEN) Radar for Special Operations Craft - Riverine		2.788      -		
<b>FY 2010 Accomplishments:</b> Developed a radar capable of penetrating the foliage in riverine and coastal environments at ranges consistent with mission parameters, and one that can operate in all light levels during any type of weather.				
<b>Congressional Add:</b> Optical Surveillance Equipment		1.992      -		
<b>FY 2010 Accomplishments:</b> This system allowed SOF to reproduce large-format/high-resolution calibration patterns used for performance analysis of surveillance systems in black and white, color, and multi-spectral bands.				
<b>Congressional Add:</b> Chemical, Biological, Radiological and Nuclear (CBRN) Detection Unmanned Aircraft		1.593      -		
<b>FY 2010 Accomplishments:</b> Assessed the capability and feasibility of operating an Advanced Developed CBRN Detection Payload integrated in a Vertical Take-off/Landing Unmanned Aerial Vehicle.				
<b>Congressional Add:</b> Antennas and other Carbon Nano Tube (CNT) Devices for Intelligence/Special Military		2.987      -		
<b>FY 2010 Accomplishments:</b> Researched, developed, and demonstrated antennas and other devices for specialized intelligence and military communications.				
<b>Congressional Add:</b> Tiger Moth Air-Launched Off Board Sensing Small Unmanned Aerial System		1.593      -		
<b>FY 2010 Accomplishments:</b> Developed an inexpensive, compact UAS that can be launched from many types of vehicles (ground, sea and air) to enhance the capabilities and situational awareness of the warfighter.				
<b>Congressional Add:</b> Intelligence, Surveillance, and Reconnaissance Global Sensor Architecture		1.593      -		
<b>FY 2010 Accomplishments:</b> Developed architecture to achieve near real-time data fusion for deployed sensor systems.				
<b>Congressional Add:</b> Increased Helicopter Situational Awareness and Survivability		9.959      -		
<b>FY 2010 Accomplishments:</b> Continued the development of the ADAS program (sensors, 3-D audio, and ADAS processor).				
<b>Congressional Add:</b> Helicopter Cable Warning and Obstacle Avoidance		1.195      -		

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160402BB: <i>Special Operations Advanced Technology Development</i>	<b>PROJECT</b> S200: <i>SO Advanced Technology Development</i>
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	FY 2010	FY 2011
<b>FY 2010 Accomplishments:</b> Analyzed, refined, fabricated, coded, integrated, modeled, simulated, tested and evaluated the performance of the 94 GHz cable warning and obstacle avoidance system.		
<b>Congressional Adds Subtotals</b>	29.117	-

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

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160422BB: <i>Aviation Engineering Analysis</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	3.412	4.234	0.837	-	0.837	0.851	0.865	0.879	0.894	Continuing	Continuing
SF101: <i>Aviation Engineering Analysis</i>	3.412	4.234	0.837	-	0.837	0.851	0.865	0.879	0.894	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides rapid response capability for the investigation, evaluation, and demonstration of technologies for Special Operations Forces (SOF)-unique aviation requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: sensor integration; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation; target detection; and future SOF aircraft requirements.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	3.529	4.234	0.837	-	0.837
Current President's Budget	3.412	4.234	0.837	-	0.837
Total Adjustments	-0.117	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.005	-			
• SBIR/STTR Transfer	-0.112	-			

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$0.117 million is due to reprogramming for higher command priorities (-\$0.005 million) and a transfer of funds to Small Business Innovative Research (-\$0.112 million).

FY 2011 None.

FY 2012 None



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	PE 1160422BB: <i>Aviation Engineering Analysis</i>

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160422BB: <i>Aviation Engineering Analysis</i>	<b>PROJECT</b> SF101: <i>Aviation Engineering Analysis</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
SF101: <i>Aviation Engineering Analysis</i>	3.412	4.234	0.837	-	0.837	0.851	0.865	0.879	0.894	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project provides a rapid response capability to support SOF fixed wing aircraft and unmanned aircraft systems. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analysis of alternatives, pre-developmental risk reduction studies, and engineering analyses. This project provides the engineering required to improve the design and performance integrity of the aircraft support systems, sub-systems, equipment, and embedded computer software as they relate to the maintenance, overhaul, repair, quality assurance, modifications, materiel improvements, and service life extensions. Also conducts risk reduction studies, analyses, and demonstrations to support emerging, time critical weapons and sensor enhancements.

**B. Accomplishments/Planned Programs (\$ in Millions)**

<b>Title:</b> Aviation Engineering Analysis	FY 2010	FY 2011	FY 2012
<i>FY 2010 Accomplishments:</i> Performed engineering studies and analyses for fixed wing aviation SOF-unique equipment and missions.	3.412	4.234	0.837
<i>FY 2011 Plans:</i> Performs engineering studies and analyses for fixed wing aviation SOF-unique equipment and missions.			
<i>FY 2012 Plans:</i> Perform engineering studies and analyses for fixed wing aviation SOF-unique equipment and missions.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.412	4.234	0.837

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

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>			PE 1160472BB: <i>SOF Information and Broadcast Systems Advanced Technology</i>								
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	0.966	4.942	4.924	-	4.924	4.899	4.982	5.065	5.151	Continuing	Continuing
S225: <i>SOF Information and Broadcast Systems Adv Tech</i>	0.966	4.942	4.924	-	4.924	4.899	4.982	5.065	5.151	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This Program Element (PE) conducts rapid prototyping, advanced technology demonstrations, and advanced concept technology demonstrations of information and broadcast systems technology. Includes planning, analyzing, evaluating, and production information systems capabilities and distribution/dissemination broadcast systems capabilities. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This PE integrates efforts with each other and conducts technology demonstrations in conjunction with joint experiments and other assessment events. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The PE also addresses unique, joint special mission or area-specific needs for which prototypes must be developed on a rapid response basis, or are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	4.967	4.942	4.924	-	4.924
Current President's Budget	0.966	4.942	4.924	-	4.924
Total Adjustments	-4.001	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-3.843	-			
• SBIR/STTR Transfer	-0.158	-			
• Other Adjustment	-	-			

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$4.001 is due to an Above Threshold Reprogramming (FY10-14 PA, dated 15 Sep 2010) to higher command priorities (-\$3.843 million) and a transfer of funds to Small Business Innovative Research (-\$.158 million).

FY 2011 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command

**DATE:** February 2011

**APPROPRIATION/BUDGET ACTIVITY**

0400: *Research, Development, Test & Evaluation, Defense-Wide*  
BA 3: *Advanced Technology Development (ATD)*

**R-1 ITEM NOMENCLATURE**

PE 1160472BB: *SOF Information and Broadcast Systems Advanced Technology*

FY 2012 None.

Schedule: None.

Technical: None.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>				<b>PROJECT</b>			
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>				PE 1160472BB: <i>SOF Information and Broadcast Systems Advanced Technology</i>				S225: <i>SOF Information and Broadcast Systems Adv Tech</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
<i>S225: SOF Information and Broadcast Systems Adv Tech</i>	0.966	4.942	4.924	-	4.924	4.899	4.982	5.065	5.151	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project conducts rapid prototyping of information and broadcast system technology. This includes cyber capabilities that predict the best media channels to reach potential target audiences, data mining and information collections tools, propaganda and social behavior analytical tools, cultural analysis toolsets and emerging technologies that support the planning and analytical needs for the Military Information Support Operations (MISO) forces. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This project integrates efforts and conducts technology demonstrations in conjunction with joint experiments and other assessment events and performs market research on emerging technologies that support all phases of MISO. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The project also addresses unique, joint special mission or area-specific needs. Seeks technologies that will transform current MISO capabilities through two major objectives: 1) Exploit technologies capable of disseminating products to reach target audiences across a variety of media to include audiences in denied areas. 2) Automate and improve MISO planning and analytical capability through technologies that are integrated into SOF planning systems (Cultural Analysis, Targeting, Theme Development, Media & Product Selection, Distribution & Dissemination, and Measures of Effectiveness). Develops software applications that increase the efficiency and shorten the timeline to get MISO dissemination packages approved. Develops hardware/software tools that facilitate the collaboration and sharing of information and other critical data.

MISO Modernization. This initiative will initiate and continue development of emergent technologies available in the marketplace to transform and modernize MISO planning, analysis, development, broadcast, distribution, dissemination, and feedback capabilities. This initiative will also continue development of appropriate emerging technologies initially identified by ATDs and ACTDs to transition to acquisition programs. Technologies include: multi-frequency broadcast systems; digital broadcast capabilities; remote controlled electronic paper; near-real-time command and control of unattended MISO systems, especially in denied areas; focused/beam speaker sound technologies; visual projection technologies; advanced commercial broadcast technologies including amplitude modulation (AM) and frequency modulation (FM) radio transmitters and antenna; television (TV) transmitter and antenna systems; internet and telephony dissemination and broadcast systems; technologies capable of disseminating MISO products to reach target audiences across a wide variety of media into denied areas; and technologies that automate and improve MISO planning and analytical capability through integrated capabilities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> MISO Modernization	0.966	4.942	4.924
<b>FY 2010 Accomplishments:</b> Continued exploring emerging technologies available in the marketplace to transform and modernize technology capabilities.			
<b>FY 2011 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command	<b>DATE:</b> February 2011
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160472BB: <i>SOF Information and Broadcast Systems Advanced Technology</i>	<b>PROJECT</b> S225: <i>SOF Information and Broadcast Systems Adv Tech</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012
Transitions previously developed technologies to programs of record such as Fly-Away Broadcast System and Media Production. These capabilities developed under the MISO modernization effort will drastically enhance the legacy programs and position the warfighter to fight future wars.  <b><i>FY 2012 Plans:</i></b> Continue to transition previously developed technologies to programs of record.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.966	4.942	4.924

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

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	26.925	16.272	5.045	-	5.045	16.853	17.136	17.425	17.722	Continuing	Continuing
9999: <i>Special Applications for Contingencies</i>	26.925	16.272	5.045	-	5.045	16.853	17.136	17.425	17.722	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research & Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data exfiltration from denied areas. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to an emergent problem set based on requirements validated through a specific Joint Staff/Office of the Secretary of Defense (OSD) chartered approval process.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	27.467	16.272	16.574	-	16.574
Current President's Budget	26.925	16.272	5.045	-	5.045
Total Adjustments	-0.542	-	-11.529	-	-11.529
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.025	-			
• SBIR/STTR Transfer	-0.517	-			
• Other Adjustment	-	-	-11.529	-	-11.529

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 9999: *Special Applications for Contingencies*

Congressional Add: *Unmanned Aerial Systems Test Facility Upgrade*

Congressional Add: *Advanced Technology Sensors and Payloads*

Congressional Add: *Comprehensive Maritime Domain Awareness*

Congressional Add: *Ground Movement Target Indicator (GMTI) Radar for Class II UAVs*

	FY 2010	FY 2011
	2.390	-
	4.780	-
	3.187	-
	0.797	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>
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<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>	FY 2010	FY 2011
Congressional Add Subtotals for Project: 9999	11.154	-
Congressional Add Totals for all Projects	11.154	-

**Change Summary Explanation**

Funding:

FY 2010 Decrease is due to a Small Business Innovative Research reduction (-\$0.517 million), and reprogrammings to higher command priorities (-\$0.025 million).

FY 2011 None.

FY 2012 Decrease of \$11.529 million is due to a Resource Management Decision 702 (-\$11.328 million) and an economic assumption (-\$.201 million).

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>	<b>PROJECT</b> 9999: <i>Special Applications for Contingencies</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Special Applications for Contingencies</i>	26.925	16.272	5.045	-	5.045	16.853	17.136	17.425	17.722	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research and Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data infiltration. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to an emergent problem set based on requirements validated through a specific Joint Staff/OSD chartered approval process.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<p><b>Title:</b> SAFC CONTINGENCIES</p> <p><b>FY 2010 Accomplishments:</b> Continued development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continued to evaluate unique sensor technologies, persistent stare and quick reaction systems.</p> <p><b>FY 2011 Plans:</b> Continues development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continues to evaluate unique sensor technologies, persistent stare and quick reaction systems.</p> <p><b>FY 2012 Plans:</b> Continue development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continue to evaluate unique sensor technologies, persistent stare and quick reaction systems.</p>	7.873	16.272	5.045
<p><b>Title:</b> SAFC SENSORS</p> <p><b>FY 2010 Accomplishments:</b></p>	7.898	-	-



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>	<b>PROJECT</b> 9999: <i>Special Applications for Contingencies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012
Continued research and assessment of emerging ISR technologies for maritime, land and air domains. Continued research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continued development and evaluation of unique unmanned sensor systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	15.771	16.272	5.045

	FY 2010	FY 2011
<b>Congressional Add:</b> Unmanned Aerial Systems Test Facility Upgrade	2.390	-
<b>FY 2010 Accomplishments:</b> Continued to develop a test/training range within approved airspace to test, evaluate, and certify sensor systems.		
<b>Congressional Add:</b> Advanced Technology Sensors and Payloads	4.780	-
<b>FY 2010 Accomplishments:</b> Developed an affordable, miniature wide-band, SIGINT/COMINT payload for employment on small and mid-size UAS platforms and in ground sensors.		
<b>Congressional Add:</b> Comprehensive Maritime Domain Awareness	3.187	-
<b>FY 2010 Accomplishments:</b> Continued development of a maritime domain awareness prototype system.		
<b>Congressional Add:</b> Ground Movement Target Indicator (GMTI) Radar for Class II UAVs	0.797	-
<b>FY 2010 Accomplishments:</b> Developed GMTI sensor capabilities for deployment on smaller unmanned aerial vehicle platforms by miniaturizing the GMTI system.		
<b>Congressional Adds Subtotals</b>	11.154	-

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

N/A

**D. Acquisition Strategy**

Special Applications for Contingencies acquisition strategy is evolutionary and spiral-based for technology insertion and low volume procurement. As a non-standard DoD acquisition program, it allows for maximum flexibility to respond to quickly emerging, short lead time, contingency based requirements that have been approved through an Executive Integrated Product Team chaired by the Joint Staff at the national level.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>	<b>PROJECT</b> 9999: <i>Special Applications for Contingencies</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Intelligence, Surveillance, and Reconnaissance Sensor and Networking Development	MIPR	Various:Various	45.237	16.272	Apr 2011	-		-		-	Continuing	Continuing	
Near-Real-Time Contingencies	MIPR	Various:Various	26.084	-		5.045	Aug 2013	-		5.045	Continuing	Continuing	
Sensor Platform Capability Development	MIPR	Various:Various	53.519	-		-		-		-	0.000	53.519	
Comprehensive Port and Maritime Domain Awareness	MIPR	NAVAIR:Patuxent River, MD	19.433	-		-		-		-	0.000	19.433	
Advance Technology Sensors & Payloads	MIPR	NAVAIR:Patuxent River, MD	6.376	-		-		-		-	0.000	6.376	
GMTI Radar for Class II UAS	MIPR	NAVAIR:Patuxent River, MD	0.797	-		-		-		-	0.000	0.797	
Prior Years	Various	Various:Various	26.649	-		-		-		-	0.000	26.649	
<b>Subtotal</b>			178.095	16.272		5.045		-		5.045			

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
UAS Test Facility Upgrade	MIPR	SPAWAR:Charleston, SC	4.784	-		-		-		-	0.000	4.784	
<b>Subtotal</b>			4.784	-		-		-		-	0.000	4.784	

	<b>Total Prior Years Cost</b>	<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>		182.879	16.272		5.045		-	5.045			

**Remarks**



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0304210BB: <i>Special Applications for Contingencies</i>	<b>PROJECT</b> 9999: <i>Special Applications for Contingencies</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities Development	1	2010	4	2016
ISR Technology Integration & Testing	3	2010	4	2016
ISR Prototype Demonstrations	1	2010	4	2016
ISR Combat Evaluation	2	2010	4	2016
Comprehensive Port Maritime Domain Awareness	1	2010	4	2011
Advanced Technology Sensors and Payloads	2	2010	4	2011
Unmanned Aerial Systems Test Facility Upgrade	1	2010	4	2010
GMTI Radar for Class II UAS	1	2010	4	2010

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/Surface Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	7.699	1.290	4.303	-	4.303	4.389	4.473	4.558	4.646	Continuing	Continuing
S400A: <i>Distributed Common Ground/Surface Systems</i>	7.699	1.290	4.303	-	4.303	4.389	4.473	4.558	4.646	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the identification, development, and testing of the Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF). The architecture interconnects the warfighter and sensors to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with/between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone (DIB) and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the degree possible.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	7.701	1.290	1.303	-	1.303
Current President's Budget	7.699	1.290	4.303	-	4.303
Total Adjustments	-0.002	-	3.000	-	3.000
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.002	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	3.000	-	3.000

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S400A: *Distributed Common Ground/Surface Systems*

Congressional Add: *DCGS Capabilities Modernization*

FY 2010	FY 2011
5.975	-
5.975	-



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/Surface Systems</i>
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**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

	FY 2010	FY 2011
Congressional Add Subtotals for Project: S400A		
Congressional Add Totals for all Projects	5.975	-

**Change Summary Explanation**

Funding:

FY 2010 Decrease \$0.002 million due to reprogramming to higher command priorities.

FY 2011 None.

FY 2012 Increase of \$3.000 million due to internal realignment of command priorities to fund the development, testing and integration of the DCGS Enterprise.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S400A: <i>Distributed Common Ground/Surface Systems</i>	7.699	1.290	4.303	-	4.303	4.389	4.473	4.558	4.646	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for the identification, development, and testing of the Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF). The architecture interconnects the warfighter and sensors to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with/between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance (ISR) sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone (DIB) and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the degree possible.

- Project also included the following Congressional add:
- DCGS Capabilities Modernization addressed requirements and expanded capabilities to exploit documents and media (DOMEX) within the SOF architecture. Funding also expanded integration of multi-functional intelligence PED capabilities into the SOF Information Enterprise (SIE) and the DCGS-SOF architecture. The funding supported the establishment of the governance business processes and rules for the SIE.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Distributed Common Ground/Surface System	1.724	1.290	4.303	-	4.303
<b>FY 2010 Accomplishments:</b> Continued development of common ground/surface system enterprise architecture and system test and integration of the DIB with the SOF Intelligence Data Management System and Multi-INT Archive and Analysis System (MAAS) software package solution into the Special Operations Command, Research, Analysis and Threat Evaluation System and Command, Control, Communications and Computers Information Automation System (C4IAS) baselines. Developed and integrated user interface for the DCGS-SOF. FY10 also includes supplemental funding (\$0.325), which supported MAAS/DCGS-SOF Integration.					
<b>FY 2011 Plans:</b>					

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continues to integrate the SOF-unique systems and Multi-INT sensors into service-common capabilities. Commences developmental test and evaluation efforts in classified and unclassified test environments. Commences development of Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) v1.0 baseline and conducts DCGS-SOF limited objective events and Empire Challenge exercise demonstrations.  <b>FY 2012 Base Plans:</b> Continue development of DCGS-SOF v1.0 baseline, commences test and evaluation of this baseline, and conducts DCGS-SOF limited objective events and Empire Challenge exercise demonstrations.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.724	1.290	4.303	-	4.303

	FY 2010	FY 2011
<b>Congressional Add:</b> DCGS Capabilities Modernization  <b>FY 2010 Accomplishments:</b> Expanded capabilities to exploit documents and media within the DCGS architecture, integrated multi-function intelligence processing, exploitation, and dissemination (PED) capabilities into the DCGS-SOF information gateway, and developed enterprise governance business rules and processes.	5.975	-
<b>Congressional Adds Subtotals</b>	5.975	-

<b>C. Other Program Funding Summary (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>DISTRIBUTED COMMON GROUND/SURFACE SYSTEM</i>	0.000	5.225	15.621	2.601	18.222	13.006	17.271	11.420	9.502	Continuing	Continuing
• PROC2: <i>SOF INTELLIGENCE SYSTEMS</i>	6.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**  
• DCGS will partner with other government agencies to meet SOF-peculiar documented requirements. The technology will allow for seamless integration with DoD, interagency, and coalition Intelligence, Surveillance, and Reconnaissance tactical PED systems.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Prime Mission Equipment/Integration	MIPR	MITRE:Bedford, MA	0.426	-		0.190	Jan 2012	-		0.190	Continuing	Continuing	
Multi-INT Archive and Analysis System/DCGS-SOF Integration	Reqn	General Dynamics:Reston, VA	0.325	-		-		-		-	0.000	0.325	
DCGS Capabilities Modernization	Various	Various:Various	8.612	-		-		-		-	Continuing	Continuing	
SURIVAC Architecture	MIPR	DITCO:Washington, DC	0.500	0.537	Jan 2011	0.213	Jan 2012	-		0.213	0.000	1.250	
Development and Integration	C/FFP	SITEC (TBD):TBD	-	-		0.940	Apr 2012	-		0.940	Continuing	Continuing	
Independent Verification and Validation	MIPR	MITRE:Bedford, MA	-	-		0.245	Jan 2012	-		0.245	Continuing	Continuing	
<b>Subtotal</b>			9.863	0.537		1.588		-		1.588			

<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
DCGS Support	C/FFP	Booz Allen Hamilton:McLean, VA	0.405	-		-		-		-	0.000	0.405	
DCGS Sensor Web Support	MIPR	SAIC:Melbourne, FL	0.171	-		-		-		-	0.000	0.171	
DCGS Support	C/FFP	SITEC (TBD):TBD	-	-		0.836	Nov 2011	-		0.836	Continuing	Continuing	
<b>Subtotal</b>			0.576	-		0.836		-		0.836			

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
DCGS Test and Evaluation	MIPR	SPAWAR:Charleston, SC	0.377	0.476	Jan 2011	0.599	Jan 2012	-		0.599	Continuing	Continuing	
DCGS Independent Verification and Validation	MIPR	MITRE:Bedford, MA.	0.871	0.277	Jan 2011	0.276	Jan 2012	-		0.276	Continuing	Continuing	

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Interoperability Support	MIPR	JITC:Ft Huachuca, AZ	0.196	-		0.280	Jan 2012	-		0.280	Continuing	Continuing	
Interoperability Testing	C/FFP	SITEC (TBD):TBD	-	-		0.724	Apr 2012	-		0.724	Continuing	Continuing	
<b>Subtotal</b>			1.444	0.753		1.879		-		1.879			
<b>Project Cost Totals</b>			11.883	1.290		4.303		-		4.303			

**Remarks**  
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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016							
	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				
Distributed Common Ground/Surface Systems (DCGS) Integration and ETIs																																
DCGS Capabilities Modernization																																
Milestone B/C Acquisition Decision																																
DCGS-SOF v1.0 Prototype Developmental Testing																																
SOF PED Enterprise Enhancements																																
DCGS v1.0 Operational Testing																																
DCGS Limited Objective Event & Empire Challenge - FY11																																
DCGS Limited Objective Event & Empire Challenge - FY12																																
DCGS Limited Objective Event & Empire Challenge - FY13																																
DCGS Limited Objective Event & Empire Challenge - FY14																																
DCGS Limited Objective Event & Empire Challenge - FY15																																
DCGS Limited Objective Event & Empire Challenge - FY16																																

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305208BB: <i>Distributed Common Ground/ Surface Systems</i>	<b>PROJECT</b> S400A: <i>Distributed Common Ground/Surface Systems</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Distributed Common Ground/Surface Systems (DCGS) Integration and ETIs	1	2010	4	2016
DCGS Capabilities Modernization	2	2010	4	2011
Milestone B/C Acquisition Decision	2	2011	2	2011
DCGS-SOF v1.0 Prototype Developmental Testing	2	2011	2	2012
SOF PED Enterprise Enhancements	2	2011	1	2012
DCGS v1.0 Operational Testing	3	2011	2	2012
DCGS Limited Objective Event & Empire Challenge - FY11	2	2011	3	2011
DCGS Limited Objective Event & Empire Challenge - FY12	2	2012	3	2012
DCGS Limited Objective Event & Empire Challenge - FY13	2	2013	3	2013
DCGS Limited Objective Event & Empire Challenge - FY14	2	2014	3	2014
DCGS Limited Objective Event & Empire Challenge - FY15	2	2015	3	2015
DCGS Limited Objective Event & Empire Challenge - FY16	2	2016	3	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.387	0.098	2.499	-	2.499	1.339	2.032	1.907	2.852	Continuing	Continuing
S400B: <i>MQ-1 Predator A UAV</i>	2.387	0.098	2.499	-	2.499	1.339	2.032	1.907	2.852	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits on the MQ-1 UAV as a component of the Medium Altitude Long Endurance Tactical Program. USSOCOM is designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of intelligence, surveillance, reconnaissance, and target acquisition.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	2.058	0.098	0.097	-	0.097
Current President's Budget	2.387	0.098	2.499	-	2.499
Total Adjustments	0.329	-	2.402	-	2.402
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.329	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	2.402	-	2.402

**Change Summary Explanation**

Funding:

FY 2010 Increase of \$0.329 million is a reprogramming for integration of MQ-1 SOF-unique mission kits.

FY 2011 None.

FY 2012 Increase of \$2.402 million will fund integration of MQ-1 SOF-unique mission kits.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 0305219BB: <i>MQ-1 Predator A UAV</i>

Schedule None.

Technical None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S400B: <i>MQ-1 Predator A UAV</i>	2.387	0.098	2.499	-	2.499	1.339	2.032	1.907	2.852	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project identifies, develops, and tests Special Operations Forces (SOF) organic MQ-1 UAV platforms, payloads, and control systems. As the supported combatant command, USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks. USSOCOM requires the capability to find, fix, and finish time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of intelligence, surveillance, reconnaissance, and target acquisition (ISR&T).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> MQ-1 Predator A UAV	2.387	0.098	2.499
<b>FY 2010 Accomplishments:</b> Continued development, test, and integration of MQ-1 UAV payload and ground control station improvements.			
<b>FY 2011 Plans:</b> Continues development, test, and integration of MQ-1 UAV payload and ground control station improvements.			
<b>FY 2012 Plans:</b> Continue development, test, and integration of MQ-1 UAV payload and ground control station improvements.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.387	0.098	2.499

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>MQ-1 Unmanned Aerial Vehicle</i>	8.896	1.948	3.025	0.000	3.025	3.913	3.732	4.236	5.238	Continuing	Continuing

**D. Acquisition Strategy**

Acquisition Strategy. MQ-1 Predator A UAV is an evolutionary acquisition program that provides improvements to SOF MQ-1 aircraft, payloads, and ground control stations to increase the ISR&T acquisition capabilities of SOF.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-1 Predator Payloads and Ground Control Stations	C/Various	General Atomics Aeronautical Services:San Diego, CA	21.450	0.098	Mar 2011	1.999	Mar 2012	-		1.999	Continuing	Continuing	
<b>Subtotal</b>			21.450	0.098		1.999		-		1.999			

<b>Support (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
<b>Subtotal</b>			-	-		-		-		-	0.000	0.000	0.000

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-1 Predator Payloads and Ground Control Stations	C/TBD	TBD:TBD	6.049	-		0.500	Mar 2012	-		0.500	Continuing	Continuing	
<b>Subtotal</b>			6.049	-		0.500		-		0.500			

<b>Management Services (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-1 Predator Payloads and Ground Control Stations	C/Various	Booz Allen Hamilton:Dayton, OH	0.648	-		-		-		-	0.000	0.648	
<b>Subtotal</b>			0.648	-		-		-		-	0.000	0.648	

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			28.147	0.098		2.499		-		2.499			

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2012 United States Special Operations Command	<b>DATE:</b> February 2011
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>
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	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
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<u>Remarks</u>								
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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b><i>MQ-1 Predator Payloads and Ground Control Stations</i></b>																												
Development/Integration																												
Test & Evaluation/User Assessment																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305219BB: <i>MQ-1 Predator A UAV</i>	<b>PROJECT</b> S400B: <i>MQ-1 Predator A UAV</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MQ-1 Predator Payloads and Ground Control Stations</i></b>				
Development/Integration	1	2010	4	2016
Test & Evaluation/User Assessment	2	2012	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>			PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>								
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	5.071	0.098	2.499	-	2.499	2.966	2.033	2.582	3.880	Continuing	Continuing
S851: <i>MQ-9 Unmanned Aerial Vehicle</i>	5.071	0.098	2.499	-	2.499	2.966	2.033	2.582	3.880	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits on the MQ-9 Unmanned Aerial Vehicle as a component of the Medium Altitude Long Endurance Tactical program. USSOCOM is designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of intelligence, surveillance, reconnaissance, and target acquisition.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	4.362	0.098	0.097	-	0.097
Current President's Budget	5.071	0.098	2.499	-	2.499
Total Adjustments	0.709	-	2.402	-	2.402
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.847	-			
• SBIR/STTR Transfer	-0.138	-			
• Other Adjustment	-	-	2.402	-	2.402

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$0.709 million includes reprogramming to fund integration of SOF-unique mission kits (\$0.847 million), and a transfer of funds to Small Business Innovative Research (-\$0.138 million).

FY 2011 None.

FY 2012 Increase of \$2.402 million to fund integration of SOF-unique mission kits.



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>	<b>PROJECT</b> S851: <i>MQ-9 Unmanned Aerial Vehicle</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S851: <i>MQ-9 Unmanned Aerial Vehicle</i>	5.071	0.098	2.499	-	2.499	2.966	2.033	2.582	3.880	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique modifications on MQ-9 Unmanned Aerial Vehicle, intelligence payloads, and control systems. As the supported combatant command in Overseas Contingency Operations (OCO), USSOCOM requires the capability to find, fix, and finish time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of intelligence, surveillance, reconnaissance, and target (ISR&T) acquisition.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> MQ-9 Unmanned Aerial Vehicle	5.071	0.098	2.499
<b>FY 2010 Accomplishments:</b> Developed, tested, and integrated MQ-9 Unmanned Aerial Vehicle payload and ground control station improvements.			
<b>FY 2011 Plans:</b> Develops, tests, and integrates MQ-9 Unmanned Aerial Vehicle payload and ground control station improvements.			
<b>FY 2012 Plans:</b> Develop, test, and integrate MQ-9 Unmanned Aerial Vehicle payload and ground control station improvements.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.071	0.098	2.499

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>MQ-9 Unmanned Aerial Vehicle</i>	12.632	1.965	3.024	0.000	3.024	3.902	4.683	4.246	5.250	Continuing	Continuing

**D. Acquisition Strategy**

MQ-9 Unmanned Aerial Vehicle is an evolutionary acquisition program that provides improvements to SOF MQ-9 aircraft, payloads, and ground control stations to increase the Intelligence Surveillance and Reconnaissance & Target (ISR&T) acquisition capabilities of Special Operations Forces (SOF).

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>	<b>PROJECT</b> S851: <i>MQ-9 Unmanned Aerial Vehicle</i>

**E. Performance Metrics**

N/A



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>	<b>PROJECT</b> S851: <i>MQ-9 Unmanned Aerial Vehicle</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

<b>MQ-9 Unmanned Aerial Vehicle</b>	
Development/Integration/Test	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105219BB: <i>MQ-9 Unmanned Aerial Vehicle</i>	<b>PROJECT</b> S851: <i>MQ-9 Unmanned Aerial Vehicle</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MQ-9 Unmanned Aerial Vehicle</i></b>				
Development/Integration/Test	1	2010	4	2016



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105232BB: <i>RQ-11 UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	-	3.000	-	3.000	-	-	-	-	Continuing	Continuing
S853: <i>RQ-11 UAV</i>	-	-	3.000	-	3.000	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

A new program element was established beginning in FY 2012 for RQ-11 class of Small Unmanned Aircraft Systems (SUAS).

This program element identifies, investigates, develops, integrates, and tests Special Operations Forces (SOF) payload requirements and spiral development efforts for SUAS capabilities for standalone employment from world-wide ground locations, from manned/unmanned aircraft, or from maritime craft. USSOCOM is designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value-targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	3.000	-	3.000
Total Adjustments	-	-	3.000	-	3.000
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	3.000	-	3.000

**Change Summary Explanation**

Funding:

FY 2010 None.

FY 2011 None.

FY 2012 Increase of \$3.000 million for Lethal Miniature Aerial Munitions System.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1105232BB: <i>RQ-11 UAV</i>

Schedule None.

Technical None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105232BB: <i>RQ-11 UAV</i>	<b>PROJECT</b> S853: <i>RQ-11 UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S853: <i>RQ-11 UAV</i>	-	-	3.000	-	3.000	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project addresses spiral development efforts validated in unmanned aircraft systems requirements documents; supports capabilities investigations; executes development testing; and integrates system payloads and upgrades for increased aircraft endurance, reduced aircraft signature, increased telemetry range, and increased payload capacity and capabilities for Small Unmanned Aircraft Systems to meet Special Operations Forces mission requirements. The Lethal Miniature Aerial Munitions System (LMAMS) will provide a new capability to effectively engage and retarget personnel/non-standard vehicle targets with precision munitions to deliver incapacitating effects using kinetic means against fixed and fleeting threat/target classes.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Lethal Miniature Aerial Munitions System	-	-	3.000
<b>FY 2012 Plans:</b> Initiate payload development, test and evaluation of Lethal Miniature Aerial Munitions System.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	3.000

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>RQ-11 Unmanned Aerial Vehicle</i>	0.000	2.090	0.486	0.000	0.486	2.541	1.150	2.124	2.160	Continuing	Continuing

**D. Acquisition Strategy**

Investigate and demonstrate possible small lethal miniature aerial munitions systems.

**E. Performance Metrics**

N/A



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105232BB: <i>RQ-11 UAV</i>	<b>PROJECT</b> S853: <i>RQ-11 UAV</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

Lethal Miniature Aerial Munitions System Development, Test and Evaluation	<div style="background-color: black; width: 100px; height: 15px; margin: 0 auto;"></div>
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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105232BB: <i>RQ-11 UAV</i>	<b>PROJECT</b> S853: <i>RQ-11 UAV</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Lethal Miniature Aerial Munitions System Development, Test and Evaluation	2	2012	2	2013



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105233BB: <i>RQ-7 UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	-	0.450	2.450	2.900	0.457	0.886	0.898	0.958	Continuing	Continuing
S852: <i>RQ-7 UAV</i>	-	-	0.450	2.450	2.900	0.457	0.886	0.898	0.958	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits for Groups 1 – 3 Unmanned Aircraft Systems (UAS). These mission kits enable SOF to meet continually evolving mission requirements. As the supported combatant command, USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations. USSOCOM requires the capability to find, fix, and finish time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of intelligence, surveillance, reconnaissance, and target acquisition.

<b>B. Program Change Summary (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	0.486	-	0.486
Current President's Budget	-	-	0.450	2.450	2.900
Total Adjustments	-	-	-0.036	2.450	2.414
• Congressional General Reductions					
• Congressional Directed Reductions					
• Congressional Rescissions	-	-			
• Congressional Adds					
• Congressional Directed Transfers					
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.036	2.450	2.414

**Change Summary Explanation**

Funding:

FY 2010 None.

FY 2011 None.

FY 2012 Decrease of \$0.036 million is due to a reprogramming to higher command priorities. FY 2012 Overseas Contingency Operations increase of \$2.450 million is due to increase for integration and test of SOF-unique mission kits for Group 1-3 Unmanned Aerial Systems.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1105233BB: <i>RQ-7 UAV</i>

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105233BB: <i>RQ-7 UAV</i>	<b>PROJECT</b> S852: <i>RQ-7 UAV</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S852: <i>RQ-7 UAV</i>	-	-	0.450	2.450	2.900	0.457	0.886	0.898	0.958	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project identifies, develops, integrates and tests Special Operations Forces (SOF) - unique mission kits for Groups 1-3 Unmanned Aircraft Systems (UAS). These mission kits enable SOF to meet continually evolving mission requirements. As the supported combatant command, USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations. USSOCOM requires the capability to find, fix, and finish time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of intelligence, surveillance, reconnaissance, and target acquisition.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Unmanned Aircraft Systems	-	-	0.450	2.450	2.900
<b>FY 2012 Base Plans:</b> Research, development, test, and evaluation of new payload technology.					
<b>FY 2012 OCO Plans:</b> Investigate and demonstrate SOF-unique payloads for Unmanned Aerial Systems.					
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	0.450	2.450	2.900

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>RQ-7 UAV</i>			0.450		0.450	0.460	0.880	0.898	0.958	Continuing	Continuing

**D. Acquisition Strategy**

Unmanned Aircraft System payloads will provide the capability to find, fix and finish high-value targets. A competitive source selection process will be conducted for the SOF-unique payloads. Proprietary considerations may direct some integration efforts to the original equipment manufacturer.

**E. Performance Metrics**

N/A.

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105233BB: <i>RQ-7 UAV</i>	<b>PROJECT</b> S852: <i>RQ-7 UAV</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF-unique Mission Kits	C/Variou	TBD:TBD	-	-		0.450	Mar 2012	2.450	Dec 2011	2.900	Continuing	Continuing	
<b>Subtotal</b>			-	-		0.450		2.450		2.900			
<b>Project Cost Totals</b>			-	-		0.450		2.450		2.900			

**Remarks**

N/A

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105233BB: <i>RQ-7 UAV</i>	<b>PROJECT</b> S852: <i>RQ-7 UAV</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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

SOF-unique Mission Kits	
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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1105233BB: <i>RQ-7 UAV</i>	<b>PROJECT</b> S852: <i>RQ-7 UAV</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SOF-unique Mission Kits	1	2012	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160279BB: <i>Small Business Innovative Research</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	10.097	-	-	-	-	-	-	-	-	Continuing	Continuing
S050: <i>Small Business Innovative Research</i>	10.097	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. Small Business Innovative Research (SBIR) is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2001. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Awards are up to \$0.100 million with a maximum six-month period of performance. Phase II projects expand the results of, and further pursue, the developments of Phase I. Awards are up to \$0.750 million with a maximum two-year period of performance. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. DOD publishes government agency proposal projects twice per year for a consolidated DoD Request for Proposal. USSOCOM then awards its proposed SBIR projects.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	-	-	-	-	-
Current President's Budget	10.097	-	-	-	-
Total Adjustments	10.097	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	10.097	-			
• Other Adjustment	-	-			

**Change Summary Explanation**

Funding:

FY 2010 None.

FY 2011 None.



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160279BB: <i>Small Business Innovative Research</i>

FY 2012 None.

Schedule: None.

Technical: None

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160279BB: <i>Small Business Innovative Research</i>	<b>PROJECT</b> S050: <i>Small Business Innovative Research</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S050: <i>Small Business Innovative Research</i>	10.097	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. The Small Business Innovative Research (SBIR) project is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2001. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Awards are up to \$0.100 million with a maximum six-month period of performance. Phase II projects expand the results of, and further pursue, the developments of Phase I. Awards are up to \$0.750 million with a maximum two-year period of performance. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. DOD publishes government agency proposal projects twice per year for a consolidated DoD Request for Proposal. USSOCOM then awards its proposed SBIR projects.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Small Business Innovative Research	10.097	-	-
<b>FY 2010 Accomplishments:</b> Initiated multiple Phase I and Phase II awards for SBIR Topics: Lightweight Small Volume CO2 removal, Automated Vehicle Identification, Geo and Ortho-Rectified Video with fused 3D Mapping Light Detection and Ranging (LIDAR), and Micro Combat Identification.			
<b>Accomplishments/Planned Programs Subtotals</b>	10.097	-	-

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	64.108	68.691	89.382	-	89.382	93.596	60.571	22.613	11.642	Continuing	Continuing
SF100: <i>SO Aviation Systems Advanced Development</i>	64.108	68.691	89.382	-	89.382	93.596	60.571	22.613	11.642	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the development, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: SOF specific avionics; low probability of intercept/low probability of detection, terrain following/terrain avoidance radar; Precision Strike Package for MC-130W Multi-Mission Modification, AC-130H Recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation, target detection, and identification technologies; digital broadcast capabilities; and aerial refueling.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	72.308	68.691	76.041	-	76.041
Current President's Budget	64.108	68.691	89.382	-	89.382
Total Adjustments	-8.200	-	13.341	-	13.341
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-6.072	-			
• SBIR/STTR Transfer	-2.128	-			
• Other Adjustment	-	-	13.341	-	13.341

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$8.200 million is due to a reprogramming to higher command priorities (-\$0.894), Internal Reprogramming Request (FY 10-31 IR, dated March 2010) to support both Helicopter Cable Warning and Obstacle Avoidance System (-\$1.195 million), and EC-130J Multi-Mission Upgrades (-\$3.983 million) and a transfer of funds to Small Business Innovative Research (-\$2.128).

FY 2011 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>

FY 2012 Net increase of \$13.341 million is due to an increase for Precision Strike Package (\$21.224 million), increase for EC-130 Upgrades (\$0.721 million), a decrease for Economic Adjustments (-\$0.294 million) and a decrease for SOF C-130 Avionics Modifications (-\$8.310 million).

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
SF100: <i>SO Aviation Systems Advanced Development</i>	64.108	68.691	89.382	-	89.382	93.596	60.571	22.613	11.642	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for the investigation, evaluation, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: SOF specific avionics; low probability of intercept/low probability of detection (LPI/LPD), terrain following/terrain avoidance (TF/TA) radar; Precision Strike Package (PSP) for MC-130W Multi-Mission Modification, AC-130H replacement aircraft, and other SOF platforms; digital terrain elevation data and electronic order of battle; digital maps; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation, target detection and identification technologies; digital broadcast capability; and aerial refueling.

- SOF C-130 Avionics Modifications. Provides for development necessary to maintain current SOF-unique capabilities for SOF C-130 aircraft. Includes the fit/function/interface replacement of the mission computers on the MC-130H and AC-130U aircraft due to obsolescence issues with the current AP-102 mission computer.
- EC-130J Commando Solo Upgrades. Provides for integration of SOF-unique implementation of the C-130J block cycle upgrade as installed on the EC-130J Commando Solo aircraft and development of digital broadcast capabilities.
- PSP MC-130W Multi-Mission Modification. Fulfills an urgent combat requirement to rapidly arm and field multi-mission precision strike platforms. Provides an armed over-watch capability including sensors, communication systems, precision guided munitions, and a single medium-caliber gun. An interim kit was fielded and funded under a Combat Mission Needs Statement. The MC-130W will return to its primary mobility role once PSP is fielded on the new AC-130H aircraft.
- PSP for SOF. Supports systems engineering, analysis, development, and enhancement of the baseline PSP for later integration and installation onto host MC-130J aircraft provided by the U.S. Air Force for the AC-130H replacement aircraft, as well as other SOF platforms. Missions for the AC-130H aircraft include, but are not limited to, Close Air Support (CAS), Air Interdiction, Armed Reconnaissance, Escort, and Force Protection - Integrated Base Defense. PSP is modular, scalable, and platform neutral, and includes mission management, sensors, and weapons.
- C-130 Terrain Following Radar System. Integrates a TF/TA radar with an on-board processor to provide a multi-mode terrain following capability. This system is targeted for the MC-130J, MC-130W, and MC-130H platforms.
- Acquisition Development Support. This funding is required to support systems engineering, analysis, and integration. Primary use of funds is to examine commonality and interoperability across systems. Funding will be used in a multitude of avenues across systems to support cost-benefit analysis; provide additional

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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test support; and further reduce cost, schedule, and technical risk. As required, funds will support manpower costs for experts needed to meet certification, safety, reliability, and other requirements required by Office of the Secretary of Defense, Acquisition, Technology and Logistics, as well as commitments for joint programs.

- SOF Common terrain following/terrain avoidance (TF/TA) (Silent Knight) Radar. Continues system design and development of a SOF common low probability of intercept/low probability of detection (LPI/LPD) radar to defeat advanced passive detection threats while maintaining ability to fly safe TF. This radar is targeted for use on all MH-47G Heavy Assault helicopters, MH-60M Blackhawk helicopters, MC-130H Combat Talon II and CV-22 Tilt-Rotor aircraft.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p><b>Title:</b> SOF C-130 Avionics Modifications</p> <p><b>FY 2010 Accomplishments:</b> Initiated development and integration of aircraft modifications to maintain SOF-unique capabilities, to include MC-130H and AC-130U mission computer replacement.</p> <p><b>FY 2011 Plans:</b> Continues development and integration of aircraft modifications to maintain SOF-unique capabilities, which will be executed via an incremental acquisition strategy based on SOF C-130 avionics obsolescence dates, to include MC-130H and AC130U mission computer replacement.</p> <p><b>FY 2012 Base Plans:</b> Continue development and integration of aircraft modifications to maintain SOF-unique capabilities, which will be executed via an incremental acquisition strategy based on SOF C-130 avionics obsolescence dates, to include MC-130H and AC130U mission computer replacement.</p>	4.234	24.542	8.550	-	8.550
<p><b>Title:</b> EC-130J Commando Solo Upgrades</p> <p><b>FY 2010 Accomplishments:</b> Continued development and integration of SOF-unique implementation of the C-130J Block Cycle 7.0 upgrade as installed on the EC-130J Commando Solo aircraft.</p> <p><b>FY 2011 Plans:</b> Develops and integrates digital broadcast capability for incorporation on EC-130J.</p> <p><b>FY 2012 Base Plans:</b> Develop and integrate digital broadcast capability for incorporation on EC-130J.</p>	0.949	0.581	1.782	-	1.782
<p><b>Title:</b> Precision Strike Package (PSP) MC-130W Multi-Mission Modification</p> <p><b>FY 2010 Accomplishments:</b></p>	26.247	-	-	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued integration and testing for offensive systems, sensors, and mission management of the Precision Strike Package (PSP) on MC-130W aircraft. <b>Title:</b> Precision Strike Package (PSP) for SOF	-	4.279	26.193	-	26.193
<b>FY 2011 Plans:</b> Initiates risk reduction, development and integration of the PSP on MC-130J aircraft, and continue system improvements. <b>FY 2012 Base Plans:</b> Continue development, integration, risk reduction, test and system improvement of the PSP on MC-130J aircraft.					
<b>Title:</b> C-130 Terrain Following Radar System	-	1.990	32.536	-	32.536
<b>FY 2011 Plans:</b> Initiates development and integration of the Terrain Following Radar System onto SOF MC-130 platforms. <b>FY 2012 Base Plans:</b> Continue development and integration of the Terrain Following Radar System onto SOF MC-130 platforms.					
<b>Title:</b> Acquisition Development Support	-	2.094	-	-	-
<b>FY 2011 Plans:</b> Conducts engineering, analysis and integration support across a multitude of systems to examine commonality and interoperability across systems; to support cost-benefit analyses; to provide additional test support; and to further reduce cost, schedule, and technical risk.					
<b>Title:</b> SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar	32.678	35.205	20.321	-	20.321
<b>FY 2010 Accomplishments:</b> Continued SOF common Engineering and Manufacturing Development (EMD) of SOF Common TF/TA radar for MH-47/60. Continued prototype integration and testing. Began developmental contractor flight testing and kit build for development/qualification flight test, platform integration, and test planning. <b>FY 2011 Plans:</b> Continues EMD of SOF Common TF/TA radar. Continue contractor flight testing and platform integration . Begin developmental flight testing. <b>FY 2012 Base Plans:</b>					

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue Engineering and Manufacturing Development (EMD) of SOF Common TF/TA radar. Continue developmental flight testing.					
<b>Accomplishments/Planned Programs Subtotals</b>	64.108	68.691	89.382	-	89.382

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>C-130 MODIFICATIONS</i>	242.753	22.500	19.665	4.800	24.465	16.723	13.061	40.836	41.555	Continuing	Continuing
• PROC2: <i>PRECISION STRIKE PACKAGE</i>	0.000	0.000	0.000	0.000	0.000	97.194	191.928	228.463	309.826	Continuing	Continuing

- D. Acquisition Strategy**
- SOF C-130 Avionics Modifications. Develop a Form, Fit, Function replacement mission computer and rehost existing Operational Flight Program and Fire Control Software. Effort is being executed via an incremental acquisition strategy based on SOF C-130 avionics obsolescence mitigation need dates.
  - EC-130J Commando Solo Upgrades. Block 7.0 is being procured by the Air Force program office using existing development and production contracts. Digital broadcast capabilities are being procured through an incremental acquisition strategy to incorporate readily available equipment into the EC-130J aircraft.
  - Precision Strike Package (PSP) MC-130W Multi-Mission Modification. Executing incremental acquisition strategy with development, integration and testing for offensive systems, sensors, and mission management.
  - PSP for SOF. Executing incremental acquisition strategy to integrate and test the PSP on MC-130J aircraft provided by the U.S. Air Force and other SOF platforms.
  - C-130 Terrain Following Radar System. Award competitive engineering and manufacturing development (EMD) contract for integration and test.
  - Acquisition Development Support. Conduct engineering, analysis and integration support across a multitude of systems to examine commonality and interoperability issues to ensure cost, schedule and technical issues are addressed.
  - SOF Common Terrain Following/Terrain Avoidance (Silent Knight) Radar. Executing incremental acquisition strategy with the MH-47G as the lead platform. A competitive EMD contract with an option for six low-rate initial production (LRIP) units was awarded to Raytheon in FY 2007. MH-60M group A design and integration effort was awarded in FY 2010. Follow-on platform group A design and integration efforts will be awarded. Group A production and installation contracts will be awarded. A follow-on radar production contract using LRIP price points will be awarded.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
SOF C-130 Avionics Modifications	C/TBD	TBD:TBD	4.234	21.084	Jun 2011	8.550	May 2012	-		8.550	Continuing	Continuing	
EC-130J Commando Solo Upgrades	C/CPIF	Lockheed Martin Aero:Marietta, GA	2.076	0.581	Jun 2011	1.782	Dec 2011	-		1.782	Continuing	Continuing	
Precision Strike Package for SOF	C/TBD	TBD:TBD	-	2.786	Mar 2011	15.742	Mar 2012	-		15.742	Continuing	Continuing	
SOF Common TF/TA (Silent Knight) Radar - Prime Mission Product	C/CPIF	Raytheon:Dallas, TX	73.204	3.511	Dec 2010	0.936	Jun 2012	-		0.936	Continuing	Continuing	
SOF Common TF/TA (Silent Knight) Radar - Systems Engineering	C/CPIF	Raytheon:Dallas, TX	13.251	0.944	Feb 2011	0.935	Jun 2012	-		0.935	Continuing	Continuing	
C-130 Terrain Following Radar System	C/TBD	TBD:TBD	-	1.990	Jun 2011	32.536	May 2012	-		32.536	Continuing	Continuing	
<b>Subtotal</b>			92.765	30.896		60.481		-		60.481			

<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Acquisition Development Support	C/Various	Various:Various	-	2.094	Mar 2011	-		-		-	0.000	2.094	
Precision Strike Package for SOF	C/Various	Various:Various	-	1.493	Jun 2011	10.451	Mar 2012	-		10.451	Continuing	Continuing	
SOF C-130 Avionics Modifications	C/Various	WR-ALC/GR:Warner Robins, GA	-	3.458	Apr 2011	-		-		-	0.000	3.458	
<b>Subtotal</b>			-	7.045		10.451		-		10.451			

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>SOF C-130 Avionics</b>																												
SOF C-130 Avionics Modifications																												
<b>EC-130J Commando Solo Upgrades</b>																												
EC-130J Commando Solo Upgrades																												
<b>Precision Strike Package</b>																												
Precision Strike Package MC-130W Multi-Mission Modification																												
Precision Strike Package for SOF																												
<b>C-130 Terrain Following Radar System</b>																												
C-130 Terrain Following Radar System																												
<b>Acquisition Development Support</b>																												
Acquisition Development Support																												
<b>SOF Common TF/TA (Silent Knight) Radar</b>																												
Prototype Integration and Testing																												
Developmental Testing (DT)																												
Operational Testing (Combined with DT)																												
Follow-On Platform Integration and Testing																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160403BB: <i>Special Operations Aviation Systems Advanced Development</i>	<b>PROJECT</b> SF100: <i>SO Aviation Systems Advanced Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF C-130 Avionics</i></b>				
SOF C-130 Avionics Modifications	4	2010	4	2016
<b><i>EC-130J Commando Solo Upgrades</i></b>				
EC-130J Commando Solo Upgrades	1	2010	4	2016
<b><i>Precision Strike Package</i></b>				
Precision Strike Package MC-130W Multi-Mission Modification	1	2010	4	2011
Precision Strike Package for SOF	1	2011	4	2016
<b><i>C-130 Terrain Following Radar System</i></b>				
C-130 Terrain Following Radar System	1	2011	4	2015
<b><i>Acquisition Development Support</i></b>				
Acquisition Development Support	1	2011	4	2011
<b><i>SOF Common TF/TA (Silent Knight) Radar</i></b>				
Prototype Integration and Testing	1	2010	4	2011
Developmental Testing (DT)	2	2011	4	2014
Operational Testing (Combined with DT)	4	2011	4	2014
Follow-On Platform Integration and Testing	1	2013	4	2016



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160404BB: <i>Special Operations Tactical Systems Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	4.323	1.582	0.799	-	0.799	0.811	0.824	0.837	0.851	Continuing	Continuing
S710: <i>SO Tactical Systems (Automation)</i>	4.323	1.582	0.799	-	0.799	0.811	0.824	0.837	0.851	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation 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 threat forces to ensure mission success.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	6.845	1.582	1.608	-	1.608
Current President's Budget	4.323	1.582	0.799	-	0.799
Total Adjustments	-2.522	-	-0.809	-	-0.809
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-2.472	-			
• SBIR/STTR Transfer	-0.050	-			
• Other Adjustment	-	-	-0.809	-	-0.809

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S710: *SO Tactical Systems (Automation)*

Congressional Add: *Covert Waveform for Software Defined Radios*

	FY 2010	FY 2011
Congressional Add Subtotals for Project: S710	2.788	-
Congressional Add Totals for all Projects	2.788	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160404BB: <i>Special Operations Tactical Systems Development</i>

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$2.522 million is due to the reprogramming of the SOC-R Armor Development for Small Arms Armor Piercing Ammo Congressional Add (-\$2.470 million) moved into PE 1160481BB SOF Munitions, reprogramming to higher command priorities (-\$0.002 million), and a transfer of funds to Small Business Innovative Research (- \$0.050 million).

FY 2011 None

FY 2012 Decrease of \$0.809 million is due to a realignment to higher command priorities.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160404BB: <i>Special Operations Tactical Systems Development</i>	<b>PROJECT</b> S710: <i>SO Tactical Systems (Automation)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S710: <i>SO Tactical Systems (Automation)</i>	4.323	1.582	0.799	-	0.799	0.811	0.824	0.837	0.851	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation 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 threat forces to ensure mission success.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> TACLAN Suites	1.535	1.582	0.799
<b>FY 2010 Accomplishments:</b> Continued development and integration of Blue Force Tracking secure wireless biometrics, Embedded National Tactical Receiver and Distributed Common Ground System data sharing capabilities.			
<b>FY 2011 Plans:</b> Continues development and integration of Blue Force Tracking secure wireless biometrics, Embedded National Tactical Receiver and Distributed Common Ground System data sharing capabilities.			
<b>FY 2012 Plans:</b> Continue development and integration of evolutionary technology insertions (ETI) such as data at rest, thin client capabilities, smartphone connectivity, Full Motion Video (FMV) and cross domain solutions.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.535	1.582	0.799

	FY 2010	FY 2011
<b>Congressional Add:</b> Covert Waveform for Software Defined Radios	2.788	-
<b>FY 2010 Accomplishments:</b> Continued development of Low Probability of Intercept/Low Probability of Detection (LPI/LPD).		
<b>Congressional Adds Subtotals</b>	2.788	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160404BB: <i>Special Operations Tactical Systems Development</i>	<b>PROJECT</b> S710: <i>SO Tactical Systems (Automation)</i>

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

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	49.191	33.319	27.916	-	27.916	28.380	26.655	28.020	27.544	Continuing	Continuing
S400: <i>SO Intelligence Systems</i>	49.191	33.319	27.916	-	27.916	28.380	26.655	28.020	27.544	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the identification, development, and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. USSOCOM has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities into the 21st century. USSOCOM's C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	41.223	33.319	27.760	-	27.760
Current President's Budget	49.191	33.319	27.916	-	27.916
Total Adjustments	7.968	-	0.156	-	0.156
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.032	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	9.000	-	0.156	-	0.156

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S400: *SO Intelligence Systems*

- Congressional Add: *Picoceptor and Processor for Manportable Threat Warning*
- Congressional Add: *Advanced Long Endurance Unattended Ground Sensor Technologies*
- Congressional Add: *Multi Spectral Lab and Analytical Services Center*
- Congressional Add: *Biometric Optical Surveillance System (BOSS)*

	FY 2010	FY 2011
	3.187	-
	3.904	-
	1.992	-
	5.975	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>
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**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

Congressional Add: *Counter-Proliferation Analysis and Planning System*

Congressional Add: *USSOCOM SOCRATES High Assurance Program*

Congressional Add Subtotals for Project: S400

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	3.984	-
	0.997	-
	20.039	-
	20.039	-

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$7.968 million due to Overseas Contingency Operations (OCO) funding (\$9.000 million) to support a Single Card Solution for Combat Identification, a decrease of (-\$1.000 million) from the Omnibus reprogramming, and reprogramming to higher command priorities (-\$0.032 million).

FY 2011 None.

FY 2012 Increase \$0.156 million to SOCRATES to continue technology upgrades.

Schedule: None.

Technical: None.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S400: <i>SO Intelligence Systems</i>	49.191	33.319	27.916	-	27.916	28.380	26.655	28.020	27.544	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for the identification, development, and testing of SOF intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. The systems developed in this line item are National Systems Support to SOF (NSSS); Joint Threat Warning System (JTWS); Counter-Proliferation Analysis and Planning System (CAPS); and Special Operations Command Research, Analysis and Threat Evaluation System (SOCRATES).

USSOCOM has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments. The intelligence programs funded in this project will meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team) and Above Operational Element (Garrison).

**OPERATIONAL ELEMENT (TEAM)**

- The National Systems Support to SOF (NSSS) is a research and development rapid prototyping program which functions as HQSOCOM's TENCAP (Tactical Exploitation of National Capabilities) program. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands (TSOCs) by leveraging National Agency and Service development efforts focused on improving space-based intelligence products and communications and special communications capabilities to tactical SOF units, to include GEOINT, SIGINT, Special Communications, and Intelligence Fusion, Reporting, Dissemination and Processing. The R&D efforts pursued by NSSS are of a rapid development, fielding and deployment character and focus on USSOCOM's manhunting mission. Though not exclusive, they are usually adjunct support efforts to USSOCOM's existing MIP programs, to include SOCRATES, Global Video Surveillance, HF-TTL, JTWS, DCGS-SOF, Friendly Force Tracking, and TACLAN.
- Joint Threat Warning System (JTWS) is an evolutionary acquisition (EA) program that provides threat warning, force protection, enhanced situational awareness, and target identification/acquisition information to SOF via signal intercept, direction finding and Signals Intelligence (SIGINT). JTWS will employ continuing technology updates to address the changing threat environment. SOF SIGINT operators are globally deployed and fully embedded within Special Operations (SO) teams and aircrews in every operational environment. This state-of-the-art technology enables SOF operators to provide critical time sensitive targeting and actionable intelligence to the operational commander during mission execution. Intelligence derived from operations supports campaign objectives and the National Military Strategy. This system has variants that utilize common technologies and interfaces allowing operators to task, organize, and scale equipment based on anticipated signal

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Exhibit R-2A, RDT&E Project Justification: PB 2012 United States Special Operations Command DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	S400: <i>SO Intelligence Systems</i>

environments and areas of operation. Variants will be modular; lightweight with minimal power requirements; and configurable to support body worn/mobile or static, air, maritime and precision geo-location operations in support of all SOF missions. Each variant, except static, will be capable of operation by a single trained operator. The four variants are Ground SIGINT Kit (GSK) Bodyworn/Mobile and Team Transportable GSK static, Air, Maritime, and Precision Geo-Location (Ground and Air).

ABOVE OPERATIONAL ELEMENT (GARRISON)

- Counter-Proliferation Analysis and Planning System (CAPS). Department of Defense (DoD) has a planning mission for counter-proliferation (CP) contingency operations. The Office of the Secretary of Defense (OSD) has identified CAPS as the standard CP planning toolset for DoD, and the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Program has consolidated RDT&E funding at USSOCOM for overall program management. U.S. Strategic Command serves as the coordinator for CAPS production requirements and provides O&M funding. The Defense Threat Reduction Agency provides science and technology expertise and integration support to enhance CAPS capabilities. CAPS provides tools and assessments to DoD and SOF mission planners to aid in worldwide identification and analysis of suspected weapons of mass destruction and potential targets; assesses the associated effectiveness, costs and risks of various CP options and their collateral effects; and develops alternative plans. CAPS is a primary source of CP mission planning information for Combatant Commanders who are the principal customers. CAPS requires ongoing development, integration and testing of leading edge technology for operational planning and processes in order to provide the best possible engineering analysis and to support consequence engineering to meet changing threats.
- The Special Operations Command Research, Analysis and Threat Evaluation System (SOCRATES) is an umbrella program that acquires and supports the network and computing infrastructure for Special Operations Forces (SOF) intelligence information up to and including the Top Secret, Sensitive Compartmented Information (TS/SCI) level. SOCRATES integrates intelligence information from national, theater, Service and SOF-specific databases; provides news service and message traffic; automated imagery processing, dissemination, and archival; analyst-to-analyst electronic mail and collaborative tools; web interfaces/search capabilities and browse-down capability to Secret web servers; and secure voice and facsimile. It provides a seamless and interoperable interface enabling SOF-unique intelligence support to mission planning and intelligence preparation of the battlespace. Effective FY2010 the Joint Interagency Collaboration Center program became part of the SOCRATES program.
- Classified. Provided under separate cover.
- Projects also include the following Congressional adds:
  - Multi-Spectral Laboratory & Services is a research effort concentrating on next-generation, multi-spectral sensors to support both the warfighter and first responder communities. Testing of biometrics and Psychological Operations efforts were conducted. Also performed testing, integration and commercialization of chemical, biological, radiological, nuclear and explosive (CBRNE) and command, control, communications computers intelligence surveillance, reconnaissance (C4ISR), sensor-related technologies.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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- Picoceptor and Processor for Manportable Threat Warning. This is a continuation of an FY2007 initiative for pico-processor development. The proof-of concept was tested in FY2008. FY09 continued development of Picoceptor and processor for Manportable Threat Warning for insertion into GSK as an Evolutionary Technology Insertion (ETI). FY10 completed prototype development and initiated conduct of operational and integration testing.
  
- Biometric Signature Research project developed 3-dimensional facial identification software and integrated it with existing Special Operations Tactical Video System collection platforms. This effort leveraged research gained from an ongoing project that is working to develop an independent (self-contained) system capable of collecting images from a distance and generating 3-dimensional images of subjects that can be stored and matched against full or partial facial images.
  
- The Advanced Long Endurance Unattended Ground Sensor development. This effort conducted research and development of advanced, low power unattended ground sensor (UGS) technologies that will provide the special operations warfighter with total, reliable and up-to-the minute situational awareness.
  
- SOCRATES High Assurance Program supported development of the High Assurance Platform (Trusted Virtual Environment) to provide the capability for a secure solution allowing the user to access multi-level information (TS/SCI) to unclassified, as well as, a multi-domain information (NATO, Coalition) on a single desktop/laptop. Significant cost savings will be realized by the DoD throughout the life cycle of this technology.
  
- Counter-Proliferation Analysis and Planning System (CAPS) will support military planners and intelligence analysts in identifying facilities and buildings that are critical nodes in the weapons of mass destruction manufacturing process.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p><b>Title:</b> Counter-Proliferation Analysis and Planning System</p> <p><b>FY 2010 Accomplishments:</b> Completed Spiral 9 and began Spiral 10 development of the CAPS database, intelligence support procedures, information technology systems planning, system integration and interface control, software development, and development of analytical tools and system interfaces.</p> <p><b>FY 2011 Plans:</b> Complete Spiral 10 and begin Spiral 11 development of CAPS engineering assessments, analytical process tools, and network interfaces for product dissemination to DoD and Combatant Command mission planners.</p> <p><b>FY 2012 Base Plans:</b> Completes Spiral 11 and begin Spiral 12 development of CAPS engineering assessments, analytical process tools, and network interfaces for product dissemination to DoD and Combatant Command mission planners.</p>	14.931	17.501	21.230	-	21.230
<p><b>Title:</b> National Systems Support to SOF</p> <p><b>FY 2010 Accomplishments:</b></p>	9.967	10.419	0.756	-	0.756

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Developed Special Operations Force (SOF) required prototype capabilities, primarily through leveraging current or developing technologies and assets in the National Intelligence Community (NIC), while coordinating with other SOCOM and NIC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas included Intelligence, Surveillance, and Reconnaissance (ISR) support for Tagging, Tracking, and higher-accuracy Geolocating hostile forces as well as Blue-Force Tracking, especially in system-challenged environments. Developed a single card solution for combat identification.</p> <p><b>FY 2011 Plans:</b> Develop SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the NIC, while coordinating with other SOCOM and NIC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas include ISR support for Tagging, Tracking, and higher-accuracy Geolocating hostile forces as well as Blue-Force Tracking, especially in system-challenged environments.</p> <p>FY 2011 OCO Plans: Conduct research and development of advanced, low power unattended ground sensor technologies.</p> <p><b>FY 2012 Base Plans:</b> Develops SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the NIC, while coordinating with other SOCOM and NIC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas will include ISR support for Tagging, Tracking, and higher-accuracy Geolocating hostile forces as well as Blue-Force Tracking, especially in system-challenged environments.</p>					
<p><b>Title:</b> Special Operations Command Research, Analysis, and Threat Evaluation System</p> <p><b>FY 2010 Accomplishments:</b> Began Spiral 3 development of the SOF Intelligence Data Management System (SIDMS). Developed, integrated, and tested technology upgrades and experimental technologies to include advanced data automation; testing of techniques for integrating metadata into existing SOF data repositories; developed a Java-compliant machine language translation; protection level 3 integration; and multiple technology insertions.</p> <p><b>FY 2011 Plans:</b> Integrate SIDMS to the SOF data layer to enable interoperability with the Defense Intelligence Information Enterprise to support net-centric data sharing with USSOCOM partners using the Distributed Common Ground</p>	0.683	1.516	2.113	-	2.113

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>			
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
System Special Operations Forces (DCGS-SOF). Develop, integrate and test technology upgrades and experimental technologies to include advanced data automation; testing of techniques for integrating metadata into existing SOF data repositories; develop a Java-compliant machine language translation; protection level 3 integration; and develop a data warehousing capability.  <b>FY 2012 Base Plans:</b> Continues to integrate SIDMS to the SOF data layer to enable interoperability with the Defense Intelligence Information Enterprise to support net-centric data sharing with USSOCOM partners using the DCGS-SOF. Develops, integrates and tests technology upgrades and experimental technologies to include advanced data automation; testing of techniques for integrating metadata into existing SOF data repositories; develops a Java-compliant machine language translation; protection level 3 integration; and develops a data warehousing capability.					
<b>Title:</b> Joint Threat Warning System  <b>FY 2010 Accomplishments:</b> Funded integration of GSK bodyworn/mobile/static networking solution. Funded the purchase of three engineering development models for testing to satisfy the Air variant Direction Finding (DF) requirement.  <b>FY 2011 Plans:</b> Complete ETI development and testing to integrate Picoceptor into GSK body worn/mobile and static systems. Integrate Precision Geo-location capabilities into Air Variant payloads.  <b>FY 2012 Base Plans:</b> Completes networking and testing within the JTWS Family of Systems and implements Time Direction of Arrival. Completes Air Special Signals Processor integration and automation.	3.571	3.883	3.367	-	3.367
<b>Title:</b> JTWS Maritime Variant  <b>FY 2012 Base Plans:</b> Completes networking and testing within the JTWS Family of Systems and implements Time Direction of Arrival. Completes Air Special Signals Processor integration and automation.	-	-	0.450	-	0.450
<b>Accomplishments/Planned Programs Subtotals</b>	29.152	33.319	27.916	-	27.916
	<b>FY 2010</b>	<b>FY 2011</b>			
<b>Congressional Add:</b> Picoceptor and Processor for Manportable Threat Warning	3.187	-			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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	FY 2010	FY 2011
<b>FY 2010 Accomplishments:</b> Completed Picoceptor prototype development and conducted operational and integration testing to JTWS GSK Bodyworn/Mobile and Static systems.		
<b>Congressional Add:</b> Advanced Long Endurance Unattended Ground Sensor Technologies <b>FY 2010 Accomplishments:</b> Conducted research and development of advanced, low power unattended ground sensor (UGS) technologies that will provide the special operations warfighter with total, reliable and up-to-the minute situational awareness.	3.904	-
<b>Congressional Add:</b> Multi Spectral Lab and Analytical Services Center <b>FY 2010 Accomplishments:</b> Performed testing, integration and commercialization of Chemical, Biological, Radiological, Nuclear, high-yield Explosives (CBRNE) and Command, Control, Communications, and Computers (C4) Intelligence, Surveillance, and Reconnaissance (ISR) sensor-related technologies.	1.992	-
<b>Congressional Add:</b> Biometric Optical Surveillance System (BOSS) <b>FY 2010 Accomplishments:</b> Enabled Biometric Optical Surveillance System (BOSS) to develop prototypes for the Department of Defense and provided new capability to use remote monitoring of unique biometric identifiers to increase national security.	5.975	-
<b>Congressional Add:</b> Counter-Proliferation Analysis and Planning System <b>FY 2010 Accomplishments:</b> Supported military planners and intelligence analysts in identifying facilities and buildings that are critical nodes in the weapons of mass destruction manufacturing process	3.984	-
<b>Congressional Add:</b> USSOCOM SOCRATES High Assurance Program <b>FY 2010 Accomplishments:</b> Supported development of the High Assurance Platform (Trusted Virtual Environment) to provide the capability for a secure solution allowing users to access multi-level information to unclassified on a single desktop/laptop.	0.997	-
<b>Congressional Adds Subtotals</b>	20.039	-



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>SOF INTELLIGENCE SYSTEMS</i>	109.041	75.892	74.702	43.558	118.260	71.169	75.143	81.513	80.964	Continuing	Continuing

**D. Acquisition Strategy**

- National Systems Support to SOF is a project to introduce and integrate national systems capabilities into the SOF force structure and operations. Activities include increasing national and commercial systems awareness, demonstrating the tactical utility of national systems and commercial data, testing technologies and evaluating operational concepts in biennial Joint Staff Special Projects, and transitioning promising concepts and technologies to other SOF program offices for execution.
- Joint Threat Warning System is an EA program that provides threat warning, force protection, enhanced situational awareness, and target identification/ acquisition information to SOF via signals intercept, direction finding and signals intelligence (SIGINT). This program will employ continuing technology updates to address the changing threat environment.
- Counter-Proliferation Analysis and Planning System is an on-going developmental initiative chartered by the Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense Programs, which was transferred to USSOCOM from the Defense Threat Reduction Agency to develop, integrate and test "leading edge technology" for operational planning to provide engineering analysis and support consequence engineering tools to meet changing threats.
- Special Operations Command Research, Analysis and Threat Evaluation System will integrate a SOF-peculiar cross-domain solution to support the seamless integration of intelligence data into mission planning and command and control capabilities in both a garrison and tactical environment. USSOCOM will leverage available funds against ongoing efforts by other government agencies to meet SOF-peculiar documented requirements.

**E. Performance Metrics**

N/A



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Joint Threat Warning System (JTWS)-Air Increment 2	MIPR	SPAWAR:Charleston, SC	2.045	0.945	Nov 2010	0.690	Nov 2011	-		0.690	Continuing	Continuing	
JTWS-Team Transportable - Ground Signal Intelligence Kit (GSK) Static	MIPR	SPAWAR:Charleston, SC	9.048	0.266	Dec 2010	0.266	Nov 2011	-		0.266	Continuing	Continuing	
JTWS-GSK, Inc 2	MIPR	SPAWAR:Charleston, SC	13.942	2.022	May 2011	1.761	May 2012	-		1.761	Continuing	Continuing	
JTWS-Maritime	MIPR	SPAWAR:Charleston, SC	0.198	-		0.450	Nov 2011	-		0.450	Continuing	Continuing	
JTWS-Advanced Tactical Warning Radio	WR	Agilent Technologies:Santa Clara, CA	2.786	-		-		-		-	0.000	2.786	
JTWS-Picoceptor and Processor for Manportable Threat Warning	WR	DRS Signal Solutions:Merrimack, NH	9.063	-		-		-		-	0.000	9.063	
JTWS-Signal Intel and Elec Warfare Dev	WR	SRC:Charleston, SC	1.596	-		-		-		-	0.000	1.596	
JTWS-NSA Intern Support	MIPR	NSA:Ft. Meade, MD	-	0.100	Apr 2011	0.100	Apr 2012	-		0.100	Continuing	Continuing	
Counter-Proliferation Analysis and Planning System	MIPR	Lawrence Livermore National Labs:Livermore, CA	116.904	16.800	Nov 2010	20.501	Nov 2011	-		20.501	Continuing	Continuing	
National Systems Support to SOF	MIPR	Various:Various	11.330	0.426	Dec 2010	0.406	Dec 2011	-		0.406	Continuing	Continuing	
Special Operations Command Research, Analysis, and Threat Evaluation System (SOCRATES)	WR	Various:Various	2.490	-		-		-		-	0.000	2.490	
SOCRATES	MIPR	OGA:Washington, DC	-	1.240	Dec 2010	-		-		-	Continuing	Continuing	
SOCRATES	SS/FFP	SITEC:TBD	-	-		1.823	Oct 2011	-		1.823	Continuing	Continuing	
Biometric Signature Research	WR	EWA:Bowling Green, KY	7.970	-		-		-		-	0.000	7.970	
University Multi Spectral Lab and Analytical Service Center	WR	OSU:Stillwater, OK	3.588	-		-		-		-	0.000	3.588	

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
National Systems Support to SOF	TBD	TBD:TBD	3.904	-		-		-		-	0.000	3.904	
FY 2011 OCO (Classified)	TBD	TBD:TBD	-	9.440	Apr 2011	-		-		-	0.000	9.440	
<b>Subtotal</b>			184.864	31.239		25.997		-		25.997			

<b>Support (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CAPS Support	MIPR	Lawrence Livermore National Labs:Livermore CA	4.426	0.701	Nov 2010	0.729	Nov 2011	-		0.729	Continuing	Continuing	
<b>Subtotal</b>			4.426	0.701		0.729		-		0.729			

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Threat Warning System	MIPR	JITC:Ft. Huachuca, AZ	1.287	0.550	Jun 2011	0.550	Jun 2012	-		0.550	Continuing	Continuing	
Special Operations Command Research, Analysis, and Threat Evaluation System - Independent Verification and Validation	MIPR	MITRE:Bedford, MA	-	0.276	Jan 2011	0.290	Jan 2012	-		0.290	Continuing	Continuing	
<b>Subtotal</b>			1.287	0.826		0.840		-		0.840			

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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<b>Management Services (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Interagency Collaboration Center	MIPR	MITRE:Tampa, FL	9.382	-		-		-		-	0.000	9.382	
Joint Interagency Collaboration Center	C/CPAF	L3 Comms:Tampa, FL	3.309	-		-		-		-	0.000	3.309	
National Systems Support to SOF Program Support	C/CPAF	Jacobs:Tampa, FL	3.856	0.553	Oct 2010	0.350	Oct 2011	-		0.350	Continuing	Continuing	
Hostile Forces-Tagging, Tracking, and Locating	C/CPFF	AT&T:Various	2.992	-		-		-		-	0.000	2.992	
<b>Subtotal</b>			19.539	0.553		0.350		-		0.350			
<b>Project Cost Totals</b>			210.116	33.319		27.916		-		27.916			

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>Counter-Proliferation Analysis and Planning System Integration</b>																												
Counter-Proliferation Analysis and Planning System Integration																												
Counter-Proliferation Analysis and Planning System Integration - Cong Add																												
<b>Biometric Optical Surveillance System (Cong Add)</b>																												
Biometric Optical Surveillance System (Cong Add)																												
<b>Special Operations Command, Research, Analysis, and Threat Evaluation High Assurance Platform (Cong Add)</b>																												
Special Operations Command, Research, Analysis, and Threat Evaluation High Assurance Platform (Cong Add)																												
<b>Joint Threat Warning System</b>																												
Variant Development, Test and Eval																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Advanced Long Endurance Unattended Ground Sensor (Cong Add)</i></b>				
Advanced Long Endurance Unattended Ground Sensor (Cong Add)	4	2010	3	2011
<b><i>Special Operations Command Research, Analysis, and Threat Evaluation</i></b>				
Special Operations Command, Research, Analysis, and Threat Evaluation	1	2010	4	2016
<b><i>Picoceptor and Processor or Man-portable Threat Warning (Cong Add)</i></b>				
Picoceptor and Processor or Man-portable Threat Warning (Cong Add)	4	2010	3	2011
<b><i>National Systems Support to SOF Participation in Space Technology Dev and Demo</i></b>				
National Systems Support to SOF Participation in Space Technology Dev and Demo	1	2010	4	2016
<b><i>FY10 OCO - NSSS</i></b>				
Single Card Solution for CID	4	2010	3	2011
<b><i>Multi-Spectral Laboratory and Services (Cong Add)</i></b>				
Multi-Spectral Laboratory and Services (Cong Add)	4	2010	3	2011
<b><i>FY 2011 OCO</i></b>				
FY 2011 OCO - Advanced Long Endurance Unattended Ground Sensor	4	2011	3	2012
<b><i>Counter-Proliferation Analysis and Planning System Integration</i></b>				
Counter-Proliferation Analysis and Planning System Integration	1	2010	4	2016
Counter-Proliferation Analysis and Planning System Integration - Cong Add	4	2010	3	2011
<b><i>Biometric Optical Surveillance System (Cong Add)</i></b>				
Biometric Optical Surveillance System (Cong Add)	4	2010	3	2011
<b><i>Special Operations Command, Research, Analysis, and Threat Evaluation High Assurance Platform (Cong Add)</i></b>				
	4	2010	3	2011

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160405BB: <i>Special Operations Intelligence Systems Development</i>	<b>PROJECT</b> S400: <i>SO Intelligence Systems</i>
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Special Operations Command, Research, Analysis, and Threat Evaluation High Assurance Platform (Cong Add)				
<b><i>Joint Threat Warning System</i></b>				
Variant Development, Test and Eval	1	2010	4	2016



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	12.214	14.406	10.775	-	10.775	-	-	-	-	0.000	37.395
SF200: SO CV-22	12.214	14.406	10.775	-	10.775	-	-	-	-	0.000	37.395

**A. Mission Description and Budget Item Justification**

The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 will provide long range, high speed, infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments. The funding in this program element supports these block increments, as well as associated flight test support. The Block 10 increment was completed in FY 2007, and the Block 20 increment started in FY 2008.

- Block 10: Integrate and test Directional Infrared Countermeasures, a system that protects against infrared guided missiles; design, integrate and validate the Troop Commander Situational Awareness Station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocate the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; add a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration, exfiltration, and resupply missions; and incorporate a dual access feature to the Digital Map System to allow both the pilot and co-pilot to independently access and control the digital map display from the mission computer.

- Block 20: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to, more robust performance in situational awareness, weapons, avionics, survivability, maneuverability, and mission deployment, and improved reliability and maintainability of the CV platform. Initial risk reduction and trade studies were initiated in FY 2006, and System Design and Development started in FY 2008. FY 2010 RDT&E activities continue on Block 20, initiating Block 20 Increment 3 and continuing Increment 1 & 2 efforts. FY 2011 RDT&E activities continue on Block 20 Increment 1, 2 & 3 efforts. FY 2012 RDT&E activities continue on Block 20 Increment 1, 2 & 3 efforts.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	12.634	14.406	9.530	-	9.530
Current President's Budget	12.214	14.406	10.775	-	10.775
Total Adjustments	-0.420	-	1.245	-	1.245
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.019	-			
• SBIR/STTR Transfer	-0.401	-			
• Other Adjustments	-	-	1.245	-	1.245

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>
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**Change Summary Explanation**

Funding:

FY 2010: Decrease of \$0.420 million includes a reprogramming to higher command priorities (-\$0.019 million), and a transfer of funds to Small Business Innovative Research (-\$0.401 million).

FY 2011: None

FY 2012: Net increase of \$1.245 million will fund CV-22 testing requirements.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>	<b>PROJECT</b> SF200: <i>SO CV-22</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
SF200: SO CV-22	12.214	14.406	10.775	-	10.775	-	-	-	-	0.000	37.395
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 will provide long range, high speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments supported with rapid prototyping. The funding in this project supports these block increments as well as associated flight test support.

- The Block 10 increment completed in FY 2007, and the Block 20 increment started in FY 2008. Block 10: Integrate and test Directional Infrared Countermeasures, a system that protects against infrared guided missiles; design, integrate and validate the Troop Commander Situational Awareness Station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocate the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; add a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration, exfiltration, and resupply missions; and incorporate a dual access feature to the Digital Map System to allow both the pilot and co-pilot to independently access and control the digital map display from the mission computer.

- Block 20: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to, robust performance in situational awareness, weapons, avionics, survivability, maneuverability, mission deployment, improved reliability and maintainability of the CV platform. Initial risk reduction and trade studies were initiated in FY 2006, and System Development and Demonstration started in FY 2008. FY 2010 RDT&E activities continue on Block 20, initiating Block 20 Increment 3 and continuing Increment 1 & 2 efforts. FY 2011 RDT&E activities continue on Block 20 Increment 1, 2 & 3 efforts. FY 2012 RDT&E activities continue on Block 20 Increment 1, 2 & 3 efforts.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> CV-22 Aircraft Block 20	12.214	14.406	10.775	-	10.775
<b>FY 2010 Accomplishments:</b> Continued flight test support and design and development of Block 20.					
<b>FY 2011 Plans:</b> Continues flight test support and design and development of Block 20.					
<b>FY 2012 Base Plans:</b> Continue flight test support and design and development of Block 20.					
<b>Accomplishments/Planned Programs Subtotals</b>	12.214	14.406	10.775	-	10.775

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>	<b>PROJECT</b> SF200: <i>SO CV-22</i>
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**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2010	FY 2011	FY 2012			FY 2013	FY 2014	FY 2015	FY 2016	Cost To	
			Base	OCO	Total					Complete	Total Cost
• PROC1: <i>CV-22 SOF MOD</i>	115.382	124.035	118.002	15.000	133.002	121.711	88.981	11.285	6.402	Continuing	Continuing
• PROC2/0401318F: <i>Aircraft Procurement Air Force</i>	597.331	529.275	466.705	70.000	536.705	422.107	331.269	135.264	51.893	Continuing	Continuing
• RDT&E1/0401318F: <i>RDT&amp;E, USAF</i>	19.640	18.270	21.793	0.000	21.793	23.144	21.389	21.019	14.425	Continuing	Continuing

**D. Acquisition Strategy**

The CV-22 program is managed by the Navy V-22 Joint Program Office (NAVAIRSYSCOM PMA-275). This ensures that the CV-22 changes are incorporated into the ongoing V-22 production line with minimum impact. Funding for the baseline CV-22 Engineering Manufacturing and Development, known as Block 0, is embedded in the Navy budget. Block 10 Research, Development, Testing, and Evaluation funding was sent from USSOCOM to NAVAIRSYSCOM to be placed on contract with the V-22 prime contractor. Block 10 capability is required for compliance with the Joint Operational Requirements Document and associated Milestone III Capabilities Production Document. Block 20 and subsequent block upgrades are planned to follow the same acquisition strategy, with NAVAIRSYSCOM PMA-275 ensuring the integration of SOF-unique systems with the ongoing basic vehicle improvements supporting both the CV-22 and the Marine Corps MV-22.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>	<b>PROJECT</b> SF200: <i>SO CV-22</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Completed Efforts	C/Various	Various:Various	384.007	-		-		-		-	0.000	384.007	
Integration, Assembly, Test and Checkout (Block 20)	SS/CPFF	Bell-Boeing:Amarillo, TX	46.175	6.513	Jan 2011	7.995	Dec 2011	-		7.995	0.000	60.683	
Systems Engineering	SS/CPFF	Raytheon:Indianapolis, IN	5.882	0.012	Jan 2011	-		-		-	0.000	5.894	
<b>Subtotal</b>			436.064	6.525		7.995		-		7.995	0.000	450.584	

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Completed Efforts	C/Various	Various:Various	43.584	-		-		-		-	0.000	43.584	
Systems Test and Evaluation (Block 20)	C/Various	Bell-Boeing; DynCorp:Amarillo, TX; Fort Worth, TX	3.389	5.117	Jan 2011	1.795	Nov 2011	-		1.795	0.000	10.301	
System Test and Evaluation (ATA)	C/Various	Bell-Boeing; DynCorp:Amarillo, TX; Fort Worth, TX	10.477	2.764	Jan 2011	0.985	Dec 2011	-		0.985	0.000	14.226	
<b>Subtotal</b>			57.450	7.881		2.780		-		2.780	0.000	68.111	

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		493.514	14.406	10.775	-	10.775	0.000	518.695

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>	<b>PROJECT</b> SF200: <i>SO CV-22</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>CV-22</b>																												
CV-22 Block 20 Development/Test																												
CV-22 Aircraft Deliveries (PROC)																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160421BB: <i>Special Operations CV-22 Development</i>	<b>PROJECT</b> SF200: <i>SO CV-22</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>CV-22</b>				
CV-22 Block 20 Development/Test	2	2010	4	2013
CV-22 Aircraft Deliveries (PROC)	1	2010	4	2016



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160423BB: <i>Joint Multi-Mission Submersible</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	28.109	14.924	-	-	-	-	-	-	-	0.000	43.033
S0419: <i>Joint Multi-Mission Submersible</i>	28.109	14.924	-	-	-	-	-	-	-	0.000	43.033

**A. Mission Description and Budget Item Justification**

NOTE: This program element was terminated in FY 2012 due to reprioritization of Underwater Systems capabilities.

The Joint Multi-Mission Submersible (JMMS) program element was established to fulfill the requirement for a manned, dry combatant submersible to provide a clandestine mobility platform. However, the JMMS program was terminated by the Department on July 30, 2010.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	33.273	14.924	-	-	-
Current President's Budget	28.109	14.924	-	-	-
Total Adjustments	-5.164	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-4.108	-			
• SBIR/STTR Transfer	-1.056	-			
• Other Adjustment	-	-	-	-	-

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$5.164 million is due to a reprogramming to SOF Underwater Systems (-\$4.058 million), a reprogramming to higher headquarters priorities (-\$.050 million) and a transfer of funds to Small Business Innovative Research (-\$1.056 million). A Prior Approval Above Threshold Reprogramming 1415-1 (FY11-02-PA, dated 5 October 2010) was submitted to Congress to reprogram \$13.684 million of JMMS FY 2010 RDT&E, Defense-wide to support the new Special Operations Forces (SOF) Underwater Systems acquisition strategy approved by the Department in November 2010

FY 2011 A Prior Approval Above Threshold Reprogramming 1415-1 will be submitted to Congress to reprogram \$14.924 million of JMMS FY 2011 RDT&E, Defense-wide to support the SOF Underwater Systems acquisition strategy.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160423BB: <i>Joint Multi-Mission Submersible</i>

FY 2012 None.

Schedule: Program was terminated on July 30, 2010.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160423BB: <i>Joint Multi-Mission Submersible</i>	<b>PROJECT</b> S0419: <i>Joint Multi-Mission Submersible</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S0419: <i>Joint Multi-Mission Submersible</i>	28.109	14.924	-	-	-	-	-	-	-	0.000	43.033
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

The Joint Multi-Mission Submersible (JMMS) project was established to fulfill the requirement for a manned, dry combatant submersible to provide a clandestine mobility platform. However, the JMMS program was terminated by the Department on July 30, 2010.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Joint Multi-Mission Submersible	28.109	14.924	-
<b>FY 2010 Accomplishments:</b> Pursued common component development or commercial-off-the-shelf solutions for submersible subsystems such as, but not limited to, batteries, sonar, and the new Underwater Systems acquisition strategy.			
<b>FY 2011 Plans:</b> Reprioritization of funds to the Underwater Systems acquisition strategy. Funds will be reprogrammed into the Underwater Systems program element to better align with the Department's savings and efficiency initiative.			
<b>Accomplishments/Planned Programs Subtotals</b>	28.109	14.924	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC1: JOINT MULTI-MISSION SUBMERSIBLE ADVANCED PROC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160426BB: <i>Operations Advanced Seal Delivery System (ASDS) Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	3.485	-	-	-	-	-	-	-	-	0.000	3.485
S0418: <i>SO Advanced SEAL Delivery System Development</i>	3.485	-	-	-	-	-	-	-	-	0.000	3.485

**A. Mission Description and Budget Item Justification**

This program element provides for development, testing, and integration of specialized equipment for the Advanced SEAL Delivery System (ASDS). Specifically, this program element provides for the ASDS-1 Improvement Program with the goal of improving the performance to the required level and insertion of technologies to avoid obsolescence. The Improvement Program consisted of integration, testing and installation of reliability improvements resulting from a series of critical system reviews. Congressional add funding will complete studies and analysis of improved components for future systems.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	3.485	-	-	-	-
Current President's Budget	3.485	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-	-	-

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S0418: *SO Advanced SEAL Delivery System Development*

Congressional Add: *Lithium-ion Battery Safety Detection and Control of Impending Failures*

Congressional Add: *Material, Design and Fabrication Solutions for Advanced SEAL Delivery System External Structural Components*

Congressional Add Subtotals for Project: S0418

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	1.494	-
	1.991	-
Congressional Add Subtotals for Project: S0418	3.485	-
Congressional Add Totals for all Projects	3.485	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160426BB: <i>Operations Advanced Seal Delivery System (ASDS) Development</i>
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**Change Summary Explanation**

Funding:

FY 2010 None.

FY 2011 None.

FY 2012 None.

Schedule: None.

Technical: None.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160426BB: <i>Operations Advanced Seal Delivery System (ASDS) Development</i>	<b>PROJECT</b> S0418: <i>SO Advanced SEAL Delivery System Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S0418: <i>SO Advanced SEAL Delivery System Development</i>	3.485	-	-	-	-	-	-	-	-	0.000	3.485
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for development, testing, and integration of specialized equipment for the Advanced SEAL Delivery System (ASDS). Specifically, this project provides for the ASDS-1 Improvement Program with the goal of improving the performance to the required level and insertion of technologies to avoid obsolescence. The Improvement Program consisted of integration, testing and installation of reliability improvements resulting from a series of critical system reviews. Congressional add funding will continue studies and analysis of improved components for future systems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011
<b>Congressional Add:</b> Lithium-ion Battery Safety Detection and Control of Impending Failures	1.494	-
<b>FY 2010 Accomplishments:</b> Continued research and development of failure detection and control for an improved battery system.		
<b>Congressional Add:</b> Material, Design and Fabrication Solutions for Advanced SEAL Delivery System External Structural Components	1.991	-
<b>FY 2010 Accomplishments:</b> Performed research on improved materials and structural components for the hull system.		
<b>Congressional Adds Subtotals</b>	3.485	-

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>ADVANCED SEAL DELIVERY SYSTEM (ASDS)</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	3.072	2.915	4.617	-	4.617	10.209	8.881	9.788	9.955	Continuing	Continuing
S750: <i>Mission Training and Preparation Systems</i>	3.072	2.915	4.617	-	4.617	10.209	8.881	9.788	9.955	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element funds the definition, design, development, prototyping, integration, and testing of Mission Training and Preparation Systems (MTPS) to support training, avoid obsolescence, and maintain simulator concurrency with weapon systems' configurations; support mission planning and rehearsal systems enhancements required to meet Special Operations Forces (SOF)-unique mission requirements and correct deficiencies identified in previous testing; and support mission planning and rehearsal capabilities in current MTPS. The MTPS program element also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse SOF training systems.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	3.178	2.915	1.417	-	1.417
Current President's Budget	3.072	2.915	4.617	-	4.617
Total Adjustments	-0.106	-	3.200	-	3.200
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.005	-			
• SBIR/STTR Transfer	-0.101	-			
• Other Adjustment	-	-	3.200	-	3.200

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$0.106 million includes a reprogramming to higher command priorities (-\$0.005 million) and a transfer of funds for Small Business Innovative Research (-\$0.101 million).

FY 2011 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>

FY 2012 Increase of \$3.200 million to support integration, assembly, test and checkout of SOF-unique modifications to the MC-130J simulators.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	<b>PROJECT</b> S750: <i>Mission Training and Preparation Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S750: <i>Mission Training and Preparation Systems</i>	3.072	2.915	4.617	-	4.617	10.209	8.881	9.788	9.955	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project funds the definition, design, development, prototyping, integration, and testing of Mission Training and Preparation Systems (MTPS) to support training, avoid obsolescence, and maintain simulator concurrency with weapon system configurations; support mission planning and rehearsal systems enhancements required to meet Special Operations Force (SOF)-unique mission requirements and correct deficiencies identified in previous testing; and support mission planning and rehearsal capabilities in current MTPS. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse SOF training systems.

Sub-projects include:

- **Distributed Mission Training Rehearsal System (DMTRS):** Consolidates existing common database components and conducts further development of those components to provide a complete system for Distributed Mission Operations, Training and Rehearsal. This development is focused on a common database and common environment solution that can be applied to all MTPS. The development builds on an existing SOF Common Database specification. The mission rehearsal capability will enable the SOF community to plan and rehearse a mission utilizing virtual simulation technologies. The capability is focused on ground and maritime forces.
- **MC-130J Simulator:** Conducts integration, assembly, test and checkout of SOF-unique MC-130J simulator modifications to include all efforts of technical and functional activities associated with the design, development, and production of mating surfaces, structures, equipment, parts, materials, and software required to assemble equipment (hardware/software) elements into training mission equipment as a whole and not directly part of any other individual element.
- **Special Operations Mission Planning Environment (SOMPE):** Develops, integrates, tests, and validates software enhancements required to meet SOF-unique requirements for, and correct deficiencies to, mission planning, preview, and execution software tools to support all phases of SOF operations from deliberate to time critical. The SOMPE project automates time-sensitive planning activities and provides enhanced situational awareness during mission execution. SOMPE provides the interoperable environment for SOF adaptive planning to integrate global operations including, but not limited to, precision strike software, digital navigation, and unmanned aerial systems command & control. This project also provides the integration of SOMPE with multi-dimensional visualization systems, providing immersive mission rehearsal in minimal timeframes from the SOMPE mission plan. SOMPE is embedded in the USSOCOM Headquarters, Theater Special Operations Commands, Joint Special Operations Task Forces, Joint Special Operations Aviation Components, SOF warfighters, and SOF warfighter platforms.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012
<b>Title:</b> DMTRS	0.700	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	<b>PROJECT</b> S750: <i>Mission Training and Preparation Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b><i>FY 2010 Accomplishments:</i></b> Developed three-dimensional, virtual mission rehearsal capability.			
<b><i>Title:</i></b> MC-130J Simulator	-	-	3.200
<b><i>FY 2012 Plans:</i></b> FY12 Initiate development of new training device for new Mission Design Series, MC-130J aircraft.			
<b><i>Title:</i></b> Special Operations Mission Planning Environment (SOMPE)	2.372	2.915	1.417
<b><i>FY 2010 Accomplishments:</i></b> Continued software development for mission data-loading software to interface with mission planning and rehearsal systems; improved ground and maritime planning modules and capabilities, and integrated virtual mission rehearsal system into the software baseline.			
<b><i>FY 2011 Plans:</i></b> Continues software development for mission data-loading software to interface with mission planning system and integration of virtual mission rehearsal system into the software baseline.			
<b><i>FY 2012 Plans:</i></b> Continue software development for mission data-loading software to interface with mission planning and rehearsal systems. Improve ground and maritime planning modules and capabilities.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.072	2.915	4.617

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>MISSION TRAINING AND PREPARATION SYSTEMS</i>	22.601	28.354	46.242	0.000	46.242	38.529	25.091	18.989	16.083	Continuing	Continuing

**D. Acquisition Strategy**

- DMTRS: Funding is sent from USSOCOM to program management offices to be placed on contracts via competition or sole source with selected contractors. Individual acquisition strategies are developed as projects are identified.
- MC-130J Simulator: Contract may be awarded via competition or sole source, with selected contractors under each modification/increment project. Funding executed via contractual action to ensure training device conforms to MC-130J capabilities.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>	<b>PROJECT</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	S750: <i>Mission Training and Preparation Systems</i>

- SOMPE: Contract may be awarded via competition or sole source, with selected contractors under each modification/increment project. Individual acquisition strategies are developed as projects are identified.

**E. Performance Metrics**

N/A.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	<b>PROJECT</b> S750: <i>Mission Training and Preparation Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J Simulator	C/TBD	TBD:TBD	-	-		3.200	Jan 2012	-		3.200	Continuing	Continuing	
Special Operations Mission Planning Environment Software (SOMPE)	C/TBD	Various:Various	7.962	2.228	Mar 2011	0.712	Jan 2012	-		0.712	Continuing	Continuing	
<b>Subtotal</b>			7.962	2.228		3.912		-		3.912			

<b>Support (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE	MIPR	Special Operations Mission Planning Office:Ft Eustis, VA	0.727	0.244	Mar 2011	0.251	Feb 2012	-		0.251	Continuing	Continuing	
<b>Subtotal</b>			0.727	0.244		0.251		-		0.251			

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE	C/CPFF	CAS:Huntsville, AL	1.396	0.443	Feb 2011	0.454	Jan 2012	-		0.454	Continuing	Continuing	
<b>Subtotal</b>			1.396	0.443		0.454		-		0.454			

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			10.085	2.915		4.617		-		4.617			

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	<b>PROJECT</b> S750: <i>Mission Training and Preparation Systems</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>DMTRS</b>																												
Development & Integration																												
<b>SOMPE</b>																												
Software Development																												
Development Support																												
Test & Evaluation																												
<b>MC-130J Simulator</b>																												
MC-130J Simulator																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160427BB: <i>Mission Training and Preparation Systems (MTPS)</i>	<b>PROJECT</b> S750: <i>Mission Training and Preparation Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>DMTRS</b>				
Development & Integration	1	2010	4	2010
<b>SOMPE</b>				
Software Development	1	2010	4	2016
Development Support	1	2010	4	2016
Test & Evaluation	1	2010	4	2016
<b>MC-130J Simulator</b>				
MC-130J Simulator	2	2012	4	2014

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160428BB: <i>Unmanned Vehicles (UV)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	0.996	-	-	-	-	-	-	-	-	Continuing	Continuing
S850: <i>Unmanned Vehicles</i>	0.996	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element addresses spiral development efforts validated in requirements documents; supports development testing; and integrates system upgrades for increased aircraft endurance, reduced aircraft signature, increased telemetry range, and increased payload capacity for the Small Unmanned Aircraft System, Multi-Mission Unmanned Aircraft System, and Global Observer to meet Special Operations Forces mission requirements.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	0.996	-	-	-	-
Current President's Budget	0.996	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S850: *Unmanned Vehicles*

Congressional Add: *Lethal Miniature Aerial Munitions System*

	FY 2010	FY 2011
Congressional Add Subtotals for Project: S850	0.996	-
Congressional Add Totals for all Projects	0.996	-

**Change Summary Explanation**

Funding:

FY 2010 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160428BB: <i>Unmanned Vehicles (UV)</i>

FY 2011 None.

FY 2012 None.

Schedule: None

Technical: None

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160428BB: <i>Unmanned Vehicles (UV)</i>	<b>PROJECT</b> S850: <i>Unmanned Vehicles</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S850: <i>Unmanned Vehicles</i>	0.996	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project addresses spiral development efforts validated in requirements documents; supports development testing; and integrates system upgrades for increased aircraft endurance, reduced aircraft signature, increased telemetry range, and increased payload capacity for the Small Unmanned Aircraft System, Multi-Mission Unmanned Aircraft System, and Global Observer to meet Special Operations Forces mission requirements.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011
<b>Congressional Add:</b> Lethal Miniature Aerial Munitions System	0.996	-
<b>FY 2010 Accomplishments:</b> Developed, tested, and evaluated hand-held, lethal aerial munitions system technologies.		
<b>Congressional Adds Subtotals</b>	0.996	-

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

N/A

**D. Acquisition Strategy**

Investigate and demonstrate possible small lethal miniature aerial munition systems and UAS payloads.

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	4.549	7.624	18.571	-	18.571	19.411	6.323	2.723	0.399	Continuing	Continuing
S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	4.549	7.624	18.571	-	18.571	19.411	6.323	2.723	0.399	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

NOTE: Beginning in FY 2012, Program Element 1160429BB was renamed AC/MC-130J. Former name was SOF Tanker Recapitalization.

The AC/MC-130J program element funds core SOF-unique modifications to replace aging MC-130E Combat Talon I, MC-130P Combat Shadow, and AC-130H Spectre airframes. These platforms perform clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and provide close air support (CAS), air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. Additional capabilities include low-light navigation and in-flight refueling as a receiver. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. An incremental upgrade approach will be used to incorporate SOF capabilities onto the aircraft.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	5.932	7.624	49.866	-	49.866
Current President's Budget	4.549	7.624	18.571	-	18.571
Total Adjustments	-1.383	-	-31.295	-	-31.295
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-1.195	-			
• SBIR/STTR Transfer	-0.188	-			
• Other Adjustment	-	-	-31.295	-	-31.295

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$1.383 million is due to a reprogramming to higher command priorities (-\$1.195 million) and a transfer of funds to Small Business Innovative Research (-\$0.188 million).

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>

FY 2011 None.

FY 2012 Net decrease of \$31.295 million is due to a transfer of funds to the correct appropriation and/or line items to sustain legacy AC-130 Gunship platforms and command and control systems (-\$23.600 million), develop an MC-130 common Terrain Following/Terrain Avoidance radar system (-\$10.231 million), reduced efforts for simulator integration, assembly, test, and checkout (-\$5.000 million), and an increase to complete increment 3 of SOF modifications to MC-130J (\$7.536 million).

Schedule: None.

Technical: None



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	<b>PROJECT</b> S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	4.549	7.624	18.571	-	18.571	19.411	6.323	2.723	0.399	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

NOTE: Beginning in FY 2012, this project was renamed AC/MC-130J. Former name was SOF Tanker Recapitalization.

The AC/MC-130J project funds core SOF-unique modifications to replace aging MC-130E Combat Talon I, MC-130P Combat Shadow, and AC-130H Spectre airframes. These platforms perform clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; airdrop leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and close air support (CAS), air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. Additional capabilities include low-light navigation and in-flight refueling as a receiver. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. USSOCOM will then employ an incremental upgrade approach to incorporate SOF capabilities onto the Air Force-provided aircraft. Sub-projects include:

- SOF-Unique Modification Development & Analysis. Conduct trade-off analysis, development, integration, and testing of aircraft enhancements to meet SOF-unique mission requirements. Enhancements include, but are not limited to, SOF communications, aircraft performance enhancements, situational awareness enhancements, survivability systems, Precision Strike Package aircraft infrastructure development, and other SOF mission kits.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> SOF-Unique Modification Development & Analysis	4.549	7.624	18.571
<b>FY 2010 Accomplishments:</b> Continued development of SOF-unique mission improvements to include SOF communications, aircraft performance enhancement, situational awareness enhancements and defensive systems.			
<b>FY 2011 Plans:</b> Continues development of SOF-unique mission improvements. Initiates Precision Strike Package aircraft infrastructure development and other SOF mission kits.			
<b>FY 2012 Plans:</b> Continue development of SOF-unique mission improvements and continue Precision Strike Package aircraft infrastructure development and other SOF mission kits.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.549	7.624	18.571

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	<b>PROJECT</b> S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>SOF TANKER RECAPITALIZATION</i>	29.017	19.996	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	117.665
• PROC2: <i>AC/MC-130J</i>	0.000	0.000	74.891	0.000	74.891	50.226	55.101	64.556	3.370	Continuing	Continuing
• PROC3: <i>PRECISION STRIKE PACKAGE</i>	0.000	0.000	0.000	0.000	0.000	97.194	191.928	228.463	309.826	Continuing	Continuing

**D. Acquisition Strategy**

The basic AC/MC-130J aircraft will be acquired under the United States Air Force HC/MC-130J Recapitalization procurement program. USSOCOM will fund development, integration, test and production/retrofit of SOF-unique mission equipment under this program and the USSOCOM Precision Strike Package program.

**E. Performance Metrics**

N/A.



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	<b>PROJECT</b> S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

<b><i>SOF-Unique Mod Development and Analysis</i></b>	
Development	
Integration and Test	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160429BB: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>	<b>PROJECT</b> S875: <i>AC/MC-130J (formerly SOF Tanker Recapitalization)</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF-Unique Mod Development and Analysis</i></b>				
Development	1	2010	2	2015
Integration and Test	1	2010	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	0.706	1.922	1.392	-	1.392	0.785	0.798	0.812	0.826	Continuing	Continuing
S700: <i>SOF Communications Equipment and Electronics Sys</i>	0.706	1.922	1.392	-	1.392	0.785	0.798	0.812	0.826	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	0.730	1.922	1.392	-	1.392
Current President's Budget	0.706	1.922	1.392	-	1.392
Total Adjustments	-0.024	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.023	-			
• Other Adjustment	-	-			

**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$0.024 million is due to a reprogramming for higher command priorities (-\$0.001 million) and a transfer of funds for Small Business Innovative Research (-\$0.023 million).

FY 2011 None.

FY 2012 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>

Schedule: None.

Technical: None.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>	<b>PROJECT</b> S700: <i>SOF Communications Equipment and Electronics Sys</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S700: <i>SOF Communications Equipment and Electronics Sys</i>	0.706	1.922	1.392	-	1.392	0.785	0.798	0.812	0.826	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Advanced Development is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that C4 systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments. The sub-projects funded in this project meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team), Above Operational Element (Deployed) and Above Operational Element (Garrison).

**OPERATIONAL ELEMENT (TEAM)**

- SOF Deployable Node (SDN) is a family of satellite communications assemblages that includes the following subprograms: heavy, medium, light, and Evolutionary Technology Insertions (ETI). The SOF Deployable Node provides new technology for the next generation antenna capability for all systems: heavy, medium, and light. This program consists of a family of deployable super high frequency, multi-band, satellite communications assemblages capable of supporting high-capacity, voice, data, video teleconferencing and video at all levels of classification. ETIs include Satellite on the Move (SOTM) version A (float and ground variants).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> SOF Deployable Node	0.706	1.922	1.392	-	1.392
<b>FY 2010 Accomplishments:</b> Developed and tested next generation antennas for the family of SOF Deployable Nodes. Continued to develop, test and evaluate an interim mobile strategic entry point. Refined, tested and evaluated tropospheric beyond line of sight capability. Tested and evaluated new 1.2 meter Hawkeye III Light and 2.0 meter antennas. Tested					

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>	<b>PROJECT</b> S700: <i>SOF Communications Equipment and Electronics Sys</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
and evaluated communications-on-the-move capability and the AN/PSC-14 Broadband Global Area Network SATCOM.					
<b><i>FY 2011 Plans:</i></b> Develops, test, and evaluate next generation SOF Deployable Node Light manpack systems and multi-purpose baseband, and the next generation SOF Deployable Medium terminal. Test and evaluate migration to Ka-band 1.6 meter antenna. Develop and test next generation enhanced line of sight capability. Test and evaluate new wideband SATCOM systems and encryption devices.					
<b><i>FY 2012 Base Plans:</i></b> Continue to develop, test, and evaluate next generation light manpack systems and multi-purpose baseband, and the next generation medium terminal.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.706	1.922	1.392	-	1.392

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC3: <i>COMMUNICATIONS EQUIPMENT AND ELECTRONICS</i>	58.564	67.807	87.489	2.325	89.814	102.104	99.767	88.061	101.144	Continuing	Continuing

**D. Acquisition Strategy**

- SOF Deployable Node is a fielded program being upgraded for next generation evolutionary technology insertions for all systems: heavy, medium, and light variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational test, and acceptance support.

**E. Performance Metrics**

N/A



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>	<b>PROJECT</b> S700: <i>SOF Communications Equipment and Electronics Sys</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

<b>SOF Deployable Node Antenna</b>	
Evolutionary Technology Insertions	[REDACTED]

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160474BB: <i>SOF Communications Equipment and Electronics Systems</i>	<b>PROJECT</b> S700: <i>SOF Communications Equipment and Electronics Sys</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Deployable Node Antenna</i></b>				
Evolutionary Technology Insertions	3	2010	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160476BB: <i>SOF Tactical Radio Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	56.279	2.347	-	-	-	-	-	-	-	Continuing	Continuing
S725: <i>SOF Tactical Radio Systems</i>	56.279	2.347	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element is for development of all SOF tactical radio programs. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. United States Special Operations Command has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. The Tactical Radios provide the critical Command, Control, and Communication (C3) link between SOF Commanders and SOF Teams involved in overseas contingency operations (OCO) and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed Command and Control communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	2.358	2.347	-	-	-
Current President's Budget	56.279	2.347	-	-	-
Total Adjustments	53.921	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	53.996	-			
• SBIR/STTR Transfer	-0.075	-			
• Other Adjustment	-	-			

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$53.921 due to two Above Threshold Reprogramming actions (FY 10-23 PA, dated 27 September 2010 and FY 10-14 PA, dated 23 September 2010) to support software waveform development for numerous handheld and man pack tactical radios (\$53.996 million), and a transfer of funds to Small Business Innovative Research (-\$.075 million).

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160476BB: <i>SOF Tactical Radio Systems</i>

FY 2011 None.

FY 2012 None.

Schedule: None

Technical: None



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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160476BB: <i>SOF Tactical Radio Systems</i>	<b>PROJECT</b> S725: <i>SOF Tactical Radio Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S725: <i>SOF Tactical Radio Systems</i>	56.279	2.347	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project is for development of all SOF tactical radio programs. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. United States Special Operations Command has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. The Tactical Radios provide the critical Command, Control, and Communication link between SOF Commanders and SOF Teams involved in overseas contingency operations (OCO) and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed Command and Control communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Special Mission Radio System	56.279	2.347	-	-	-
<b>FY 2010 Accomplishments:</b> Developed and tested Low Probability of Intercept/Low Probability of Detection (LPI/LPD) transceiver board upgrades and waveforms for SOCOM tactical radio application. Developed Advanced Special Communications Mode for SOF to ensure SOF radios continue to be interoperable with the latest devices.					
<b>FY 2011 Plans:</b> Continues developing and testing LPI/LPD transceiver board upgrades and waveforms for SOCOM tactical radio application.					
<b>Accomplishments/Planned Programs Subtotals</b>	56.279	2.347	-	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160476BB: <i>SOF Tactical Radio Systems</i>	<b>PROJECT</b> S725: <i>SOF Tactical Radio Systems</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>SOF TACTICAL RADIO SYSTEMS</i>	57.707	39.219	76.459	2.894	79.353	72.811	65.748	56.584	58.876	Continuing	Continuing

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	4.044	0.479	2.610	-	2.610	3.493	-	-	0.005	Continuing	Continuing
S375: <i>SOF Weapons Systems</i>	4.044	0.479	2.610	-	2.610	3.493	-	-	0.005	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for development, testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of Special Operations Forces (SOF). This 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 threat forces to ensure mission success.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	1.077	0.479	0.249	-	0.249
Current President's Budget	4.044	0.479	2.610	-	2.610
Total Adjustments	2.967	-	2.361	-	2.361
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	3.003	-			
• SBIR/STTR Transfer	-0.034	-			
• Other Adjustment	-0.002	-	2.361	-	2.361

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S375: *SOF Weapons Systems*

Congressional Add: *Weapons Accessories - Miniature Day-Night Sight for Crew-served Weapons - Integration, Assembly and Test*

Congressional Add: *Weapons Accessories - Thermal Pointer/Illuminator for Force Protection - Integration, Assembly and Test*

Congressional Add Subtotals for Project: S375

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	1.195	-
	1.593	-
	2.788	-
	2.788	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 United States Special Operations Command DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160477BB: <i>SOF Weapons Systems</i>

**Change Summary Explanation**

Funding:

FY2010 Net increase of \$2.967 million is due to Congressional adds for the Miniature Day-Night Sight for Crew-served Weapons (\$1.200 million) and Thermal Pointer/Illuminator for Force Protection (\$1.600 million), reprogramming adjustments from PE 1160479BB (\$0.215 million), Section 8097 congressional general reduction (-\$0.012 million), SBIR tax (-\$0.034 million), and other program adjustments (-\$0.002 million).

FY2011 N/A

FY2012 Net increase of \$2.361 million is due to reprogramming of funds for higher command priorities.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S375: <i>SOF Weapons Systems</i>	4.044	0.479	2.610	-	2.610	3.493	-	-	0.005	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for development and testing of specialized, lightweight individual weapons and fire control/surveillance devices to meet the unique requirements of Special Operations forces (SOF). SOF often deploys as small, independent, quick reaction, foot-mobile teams independent of primary logistics support. Existing weapons and combat equipment are frequently unsuited to these conditions. Sub-projects include:

- **Family of Sniper Weapon Systems.** This program includes next generation system development and pre-planned product improvements to current sniper systems. Next-generation systems include two variants: a Precision Sniper Rifle (PSR) that is intended to provide SOF with a highly accurate weapon system capable of engaging targets while holding 1.0 Minute of Angle (MOA), Extreme Vertical Spread (EVS) at 914 meters (1000 yards) and 1.5 MOA EVS at 1500 meters (1640) yards Threshold, .5 MOA EVS from 274 to 1500 meters (300 to 1640 yards) Objective, and an anti-materiel rifle that will pursue heavy sniper system technology to provide SOF with precision engagement capabilities on materiel targets.
  
- **Weapons Accessories.** Weapons Accessories. This program effort enhances all SOF weapons, both individual and crew served, by leveraging the latest technological advances in optional accessories (up to 30 different functions/capabilities) such as day scopes, night scopes, active aiming laser module, visible lights, grenade launchers, suppressors, hand grips, and close quarters battle sights. Miniature Day-Night Sight (MDNS) for Crew-served Weapons enhances all SOF weapons, by leveraging existing image intensification and thermal technology to improve combat effectiveness for all crew served weapon systems. Developmental efforts include test and evaluation of the combat assault rifle to include replicating live fire shock profiles. Thermal Pointer/Illuminator for Force Protection is an out-of-band thermal pointer for individual SOF weapons. It provides active targeting without the possibility of exploitation by common commercial night vision devices. Leveraging extensive modeling and simulation efforts executed by National Labs, competitively award RDT&E contracts to select vendors to develop suppressors and flashhiders for select SOF weapon systems. These accessories greatly improve the combat effectiveness of the weapon systems and the survivability of the SOF operator. This program was increased by FY 2001, FY 2002, FY 2004, FY 2006, FY 2007 and FY2010 Congressional Adds.
  
- **Combat Assault Rifle (CAR).** This program will provide the SOF operator with a 7.62mm Sniper Support Rifle (SSR), 7.62mm heavy and a 5.56mm common upper receiver kit. Variants will replace a percentage of assault rifles and light sniper weapons currently in the SOF inventory. Developmental efforts include development, test and evaluation of the SSR, objective "common upper receiver" design of the CAR, and a full ballistic fire control system for the 40mm Enhanced Grenade Launcher Module (EGLM). The SSR is the next generation sniper support weapon system. The common upper receiver will be capable of accepting 5.56mm, 7.62mm, or any enhanced ammunition or additional caliber ammunition developed. The EGLM fire control unit will provide SOF operators with a precision ballistic solution for current inventory 40mm ammunitions and enhanced 40mm ammunition, for the single shot, 40mm grenade launcher that interfaces with the family of CAR systems. This program funding was increased by an FY 2007 Congressional Add.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p><b>Title:</b> Sniper Weapon Systems</p> <p><b>FY 2010 Accomplishments:</b> FY10 Purchased PSR test articles to conduct operational testing and field user assessment.</p> <p><b>FY 2011 Plans:</b> FY11 Purchase PSR labor support and ammo to conduct operational testing and fielder user assessment.</p>	0.257	0.231	-	-	-
<p><b>Title:</b> Weapons Accessories</p> <p><b>FY 2010 Accomplishments:</b> FY10 Conducted market research and assessments for crew-served weapon capabilities.</p> <p><b>FY 2011 Plans:</b> FY11 Purchase labor support for down select, conduct market research, purchase test articles, and labor support for operational testing and field user assessments for the Clip-on Night Vision Devices P3I (Preplanned Product Improvement) and Muzzle Breaks and Suppressors programs.</p> <p><b>FY 2012 Base Plans:</b> FY12 Conduct market research, purchase labor support for down select, test articles, labor support for operational and developmental testing and field user assessment that support the Enhanced Combat Optical Sights, Clip-on Night Vision Devices, M-4 Upper Receiver Groups P3I and Muzzle Breaks and Suppressors programs.</p>	0.249	0.248	2.610	-	2.610
<p><b>Title:</b> Combat Assault Rifle</p> <p><b>FY 2010 Accomplishments:</b> FY10 Completed development of the CAR's common upper receiver and began development of the EGLM fire control unit for the 40mm programmable ammunition.</p>	0.750	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	1.256	0.479	2.610	-	2.610
	<b>FY 2010</b>	<b>FY 2011</b>			
<b>Congressional Add:</b> Weapons Accessories - Miniature Day-Night Sight for Crew-served Weapons - Integration, Assembly and Test	1.195	-			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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	FY 2010	FY 2011
<b>FY 2010 Accomplishments:</b> Purchased test articles, labor support for developmental testing to include shock profiling of the CAR and additional purchase of .50 caliber ammunition for developmental testing and evaluation of the compatibility of the M-2 HB (Heavy Barrel) weapon system.		
<b>Congressional Add:</b> Weapons Accessories - Thermal Pointer/Illuminator for Force Protection - Integration, Assembly and Test	1.593	-
<b>FY 2010 Accomplishments:</b> Conducted market research, procured labor support for down select, test articles, and labor support for operational testing and field user assessment.		
<b>Congressional Adds Subtotals</b>	2.788	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC: <i>SMALL ARMS AND WEAPONS</i>	42.604	30.094	9.196	6.488	15.684	16.005	8.829	6.982	8.397	Continuing	Continuing

**D. Acquisition Strategy**

- Family of Sniper Weapon Systems. Develops, tests and evaluates highly accurate, long-range weapon systems to enable the SOF operator to engage the enemy and materiel targets utilizing pre-planned product improvement and incremental development based on technology advances.
- Weapons Accessories. Develops, tests and evaluates accessories to optimize the effectiveness of all SOF weapons in order to increase their operational effectiveness through improved target recognition, acquisition and hit capability during day and night from close quarters to maximum effective range of each weapon. Provide Miniature Day-Night Sight for Crew-served Weapons tests and evaluates the impact of shock profiling for the CAR via hardware and software modification to replicate live fire shock levels. Purchase .50 caliber ammunition for further developmental test and evaluation for the crew-served weapons to verify compatibility with the M2-HB weapon system. Thermal Pointer/Illuminator for Force Protection: conduct market surveys and issue solicitations for a two-phased approach across multiple technologies. Award and conduct a technical evaluation of prototypes to access prior to fielding. Once awarded, a technical evaluation of prototypes that are submitted will be conducted and the resulting data will be used for future Milestone B Decision.
- CAR. This program develops, tests and evaluates the next generation assault weapon system(s) and sniper support weapons to meet the requirements specific to SOF missions utilizing an incremental approach. Pre-planned product improvements and advances in technology are the basis for each increment.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Weapons Accessories - Integration	C/IDIQ	NSWC-Crane:Crane, IN	0.703	-		-		-		-	Continuing	Continuing	
Weapons Accessories - Systems Integration	C/IDIQ	NSWC-Crane:Crane, IN	0.198	0.248	Jun 2011	-		-		-	Continuing	Continuing	
Sniper Weapons Systems	C/IDIQ	NSWC-Crane:Crane, IN	0.744	0.231	Sep 2010	-		-		-	Continuing	Continuing	
Thermal Pointer/Illuminator for Force Protection	C/IDIQ	NSWC-Crane:Crane, IN	0.831	-		-		-		-	Continuing	Continuing	
Combat Assault Rifle - Integration	C/IDIQ	NSWC-Crane:Crane, IN	3.554	-		-		-		-	Continuing	Continuing	
Miniature Day-Night Sight for Crew-served Weapons	C/IDIQ	NSWC-Crane:Crane, IN	0.720	-		-		-		-	Continuing	Continuing	
<b>Subtotal</b>			6.750	0.479		-		-		-			

<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Weapons Accessories	C/IDDQ	NSWC-Crane:Crane, IN	0.108	-	Oct 2009	1.535	Dec 2011	-		1.535	Continuing	Continuing	
Miniature Day-Night Sight for Crew Served Weapons	C/IDIQ	NSWC-Crane:Crane, IN	0.375	-		-		-		-	Continuing	Continuing	
<b>Subtotal</b>			0.483	-		1.535		-		1.535			

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Miniature Day-Night Sight for Crew Served Weapons	C/IDIQ	NSWC-Crane:Crane, IN	0.100	-		-		-		-	Continuing	Continuing	
Weapons Accessories	C/IDIQ	NSWC-Crane:Crane, IN	-	-		1.075	Mar 2012	-		1.075	Continuing	Continuing	
<b>Subtotal</b>			0.100	-		1.075		-		1.075			

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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

<b><i>Weapons Accessories - M4 Upper Receiver Group P3I</i></b>																																																
Release solicitation									■																																							
Receive production samples									■																																							
Conduct Development Testing													■																																			
Conduct operational testing																	■																															
MS C FRP decision																					■																											
Contract award for production units																									■																							
Receipt of production units																													■																			
<b><i>Weapons Accessories - Enhanced Combat Optical Sight Development</i></b>																																																
Release solicitation													■																																			
Receive production samples													■																																			
Conduct developmental testing																	■																															
Conduct operational testing																					■																											
MS C FRP decision																									■																							
Contract award for production units																													■																			
Receipt of production units																													■																			
<b><i>Weapons Accessories - Clip-on Night Vision Device P3I Development</i></b>																																																
Develop/release solicitation	■																																															
Developmental testing					■																																											
User Assessment					■																																											
Contract award					■																																											
Received limited test units					■																																											

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
Conduct operational testing of limited test units																												
LRIP decision																												
Contract MOD for LRIP units																												
LRIP initial operational test and evaluations																												
MS C FRP decision																												
<b><i>Weapons Accessories - .50 Caliber Muzzle Breaks and Suppressors</i></b>																												
Release solicitation																												
Receive production samples																												
Conduct developmental testing																												
Conduct operational testing																												
MS C FRP decision																												
Contract award for production units																												
Receipt of production units																												
<b><i>Sniper Weapon Systems</i></b>																												
Next Generation Rifle - Medium Development																												
<b><i>Weapons Accessories - Family of Muzzle Break Suppressors Development</i></b>																												
Release carbine solicitation																												
Conduct Carbine Operational Test																												
Conduct developmental test																												
Receive Production Samples																												
Carbine - MS C for FRP decision																												
Award carbine contract																												

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
Release Lightweight Machine Gun (LMG) solicitation							■																					
Conduct LMG developmental test							■																					
Conduct LMG operational test											■																	
LMG - MS C for FRP decision											■																	
Award LMG contract												■																
<b><i>Combat Assault Rifle (CAR) - Enhanced Grenade Launcher Module Development</i></b>																												
Procured test samples		■	■																									
Perform developmental testing		■	■	■																								
Perform user assessment							■																					
MS C LRIP approval											■																	
<b><i>CAR - Common Upper Receiver Development</i></b>																												
Complete developmental testing			■																									
Receive joint safety approval							■																					
Perform FOT&E							■																					
Receive F&DR							■																					
Exercise delivery order for Parts Kits (existing CAR contract)							■																					
Fielding of Parts Kits							■																					
<b><i>Sniper Support Rifle System (SSR) Development</i></b>																												
Joint safety approval			■																									
Legal review approval				■																								

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
SSR F&DR approval				■																								
SSR MS C FRP				■																								
Execute delivery order using existing CAR contract				■																								
CAR fielding							■	■	■	■																		
<b><i>Miniature Day-Night Sight for Crew-served Weapons</i></b>																												
Initial upgrades to shock table		■	■	■																								
Purchase .50 caliber for developmental testing				■																								
Purchase test samples				■																								
Final verification of shock table upgrades				■																								
<b><i>Thermal Pointer/Illuminator for Force Protection</i></b>																												
Conduct market survey		■																										
Release solicitation				■																								
Receive proposals					■	■																						
Down select						■	■																					
Contract award							■	■																				
Receive evaluation samples						■	■	■	■																			
Developmental testing						■	■	■	■	■																		
Limited user assessment										■	■	■	■															
MS B decision											■	■																

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Weapons Accessories - M4 Upper Receiver Group P3I</i></b>				
Release solicitation	1	2012	1	2012
Receive production samples	1	2012	1	2012
Conduct Development Testing	2	2012	2	2012
Conduct operational testing	3	2012	3	2012
MS C FRP decision	4	2012	4	2012
Contract award for production units	1	2013	1	2013
Receipt of production units	2	2013	2	2013
<b><i>Weapons Accessories - Enhanced Combat Optical Sight Development</i></b>				
Release solicitation	1	2012	1	2012
Receive production samples	1	2012	1	2012
Conduct developmental testing	2	2012	2	2012
Conduct operational testing	3	2012	3	2012
MS C FRP decision	4	2012	4	2012
Contract award for production units	1	2013	1	2013
Receipt of production units	1	2013	1	2013
<b><i>Weapons Accessories - Clip-on Night Vision Device P3I Development</i></b>				
Develop/release solicitation	1	2010	3	2010
Developmental testing	1	2011	1	2011
User Assessment	1	2011	1	2011
Contract award	2	2011	2	2011
Received limited test units	3	2011	3	2011

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>		

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Conduct operational testing of limited test units	3	2011	1	2012
LRIP decision	3	2012	3	2012
Contract MOD for LRIP units	3	2012	3	2012
LRIP initial operational test and evaluations	4	2012	4	2012
MS C FRP decision	4	2012	4	2012
<b><i>Weapons Accessories - .50 Caliber Muzzle Breaks and Suppressors</i></b>				
Release solicitation	1	2012	1	2012
Receive production samples	1	2012	1	2012
Conduct developmental testing	2	2012	2	2012
Conduct operational testing	3	2012	3	2012
MS C FRP decision	4	2012	4	2012
Contract award for production units	1	2013	1	2013
Receipt of production units	1	2013	1	2013
<b><i>Sniper Weapon Systems</i></b>				
Next Generation Rifle - Medium Development	4	2010	3	2011
<b><i>Weapons Accessories - Family of Muzzle Break Suppressors Development</i></b>				
Release carbine solicitation	1	2011	1	2011
Conduct Carbine Operational Test	2	2011	2	2011
Conduct developmental test	2	2011	2	2011
Receive Production Samples	2	2011	2	2011
Carbine - MS C for FRP decision	3	2011	3	2011
Award carbine contract	1	2012	1	2012
Release Lightweight Machine Gun (LMG) solicitation	2	2011	2	2011
Conduct LMG developmental test	3	2011	3	2011

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Conduct LMG operational test	4	2011	4	2011
LMG - MS C for FRP decision	4	2011	4	2011
Award LMG contract	1	2012	1	2012
<b><i>Combat Assault Rifle (CAR) - Enhanced Grenade Launcher Module Development</i></b>				
Procured test samples	2	2010	3	2010
Perform developmental testing	2	2010	1	2011
Perform user assessment	2	2011	2	2011
MS C LRIP approval	4	2011	4	2011
<b><i>CAR - Common Upper Receiver Development</i></b>				
Complete developmental testing	4	2010	4	2010
Receive joint safety approval	1	2011	1	2011
Perform FOT&E	1	2011	1	2011
Receive F&DR	2	2011	2	2011
Exercise delivery order for Parts Kits (existing CAR contract)	2	2011	2	2011
Fielding of Parts Kits	2	2011	2	2011
<b><i>Sniper Support Rifle System (SSR) Development</i></b>				
Joint safety approval	3	2010	3	2010
Legal review approval	4	2010	4	2010
SSR F&DR approval	4	2010	4	2010
SSR MS C FRP	4	2010	4	2010
Execute delivery order using existing CAR contract	4	2010	4	2010
CAR fielding	2	2011	4	2011
<b><i>Miniature Day-Night Sight for Crew-served Weapons</i></b>				
Initial upgrades to shock table	2	2010	3	2010

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160477BB: <i>SOF Weapons Systems</i>	<b>PROJECT</b> S375: <i>SOF Weapons Systems</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Purchase .50 caliber for developmental testing	4	2010	4	2010
Purchase test samples	4	2010	4	2010
Final verification of shock table upgrades	4	2010	4	2010
<b><i>Thermal Pointer/Illuminator for Force Protection</i></b>				
Conduct market survey	2	2010	2	2010
Release solicitation	4	2010	4	2010
Receive proposals	1	2011	1	2011
Down select	2	2011	2	2011
Contract award	3	2011	3	2011
Receive evaluation samples	2	2011	4	2011
Developmental testing	2	2011	1	2012
Limited user assessment	1	2012	2	2012
MS B decision	2	2012	2	2012

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>			PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>								
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	0.574	0.593	2.971	-	2.971	3.191	0.826	0.747	0.758	Continuing	Continuing
S385: <i>SOF Soldier Protection and Survival Systems</i>	0.574	0.593	2.100	-	2.100	2.311	0.401	0.224	0.406	Continuing	Continuing
S385A: <i>Theater Body Armor and Associated Equipment</i>	-	-	0.871	-	0.871	0.880	0.425	0.523	0.352	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for development, testing, and integration of specialized equipment to meet the unique soldier protection and survival requirements of Special Operations Forces (SOF). Specialized equipment will improve survivability and mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods, and in locations requiring small unit autonomy. The National Defense Authorization Act of 2010 directed a separate project be created for ballistic protection efforts within the existing program element. Therefore, Project S385A was established.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	0.594	0.593	0.599	-	0.599
Current President's Budget	0.574	0.593	2.971	-	2.971
Total Adjustments	-0.020	-	2.372	-	2.372
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.019	-			
• Other Adjustment	-	-	2.372	-	2.372

**Change Summary Explanation**

Funding:

FY 2010: Decrease of \$0.019 million is due to SBIR transfer and \$0.001 million is realigned for higher command priorities.

FY 2011: No change.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>
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FY 2012: Increase of \$2.372 million will support efforts for secure wireless Modular Integrated Communications Helmet development and additional development of new lighter weight material solutions for SPEAR individual equipment. Increase will also include ballistic development and testing for next generation ballistic material solution and research to identify new non-destruction inspection methods.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S385: <i>SOF Soldier Protection and Survival Systems</i>	0.574	0.593	2.100	-	2.100	2.311	0.401	0.224	0.406	Continuing	Continuing
Quantity of RDT&E Articles											

**Note**

Beginning in FY 2012, the ballistic protection efforts resources were moved to a separate project (S385A) to comply with the National Defense Authorization Act of 2010.

**A. Mission Description and Budget Item Justification**

The Special Operations Forces (SOF) Soldier Protection and Survival Systems project provides specialized equipment to meet the unique soldier protection and survival requirements of SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Special Tactics Operators; and Marine Forces Special Operations Command. Specialized equipment improves survivability and mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. This project provides for the research, development, and testing of a variety of individual and survival equipment to include: combat uniforms, load carriage systems, communications headsets, visual augmentation system (VAS) mounts, tactical combat casualty care equipment kits and Counter-Improvised Explosive Device Systems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> SOF Personal Equipment Advanced Requirements (SPEAR)	0.574	0.593	2.100	-	2.100
<b>FY 2010 Accomplishments:</b> Began Protective Combat Uniform (PCU) fire reduction testing, continued body armor high temperature ammunition testing and validated true threat round velocities; initiated technology search to improve non-destructive inspection (NDI) of ballistic plates; completed maritime body armor vest test; and completed design and testing of soft armor reliability indicator.					
<b>FY 2011 Plans:</b> Continues true threat round velocity testing and technical insertions into PCU technologies; initiates test blast and flash resistance, fire retardant capabilities on current PCU against multiple standards; continue NDI effort to produce robust capability for inspection of ballistic plates; and initiate development of advanced soft armor products.					
<b>FY 2012 Base Plans:</b>					

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continue testing fire retardant materials for the PCU; continue development of lightweight/high strength materials for personal equipment . Initiate efforts to develop secure wireless link to individual communications headsets to enhance operator mobility; and identify lightweight power sources for extremity protection efforts.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.574	0.593	2.100	-	2.100

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC1: <i>SOLDIER PROTECTION AND SURVIVAL SYSTEMS</i>	0.548	0.221	0.362	34.900	35.262	11.650	12.164	12.661	12.876	Continuing	Continuing

**D. Acquisition Strategy**  
SPEAR program primarily takes advantage of modified commercial off the shelf (COTS) or non-developmental items (NDI) through open competition.

**E. Performance Metrics**  
N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR Modular Integrated Communication Helmet System	MIPR	PM-SSES:Natick, MA	-	-		0.109	May 2012	-		0.109	Continuing	Continuing	
Protective Combat Uniform (PCU)	MIPR	PM-SSES:Natick, MA	0.361	-		0.500	Feb 2012	-		0.500	Continuing	Continuing	
Load Carriage System (LCS) and Backpacks	MIPR	PM-SSES:Natick, MA	0.050	-		0.200	Mar 2012	-		0.200	Continuing	Continuing	
Modular Glove System (MGS)	MIPR	PM-SSES:Natick, MA	-	-		0.100	Feb 2012	-		0.100	Continuing	Continuing	
<b>Subtotal</b>			0.411	-		0.909		-		0.909			

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Protected Combat Uniform Fire Retardant Test/ Preplanned Product Improvement (P3I)	MIPR	PM-SSES:Natick, MA	0.193	0.194	Feb 2011	0.150	Feb 2012	-		0.150	Continuing	Continuing	
Signature Management Profile Refinement	MIPR	PM-SSES:Natick, MA	-	-		0.141	Mar 2012	-		0.141	Continuing	Continuing	
Load Carriage System/ Backpack Material and Prototype Testing	MIPR	PM-SSES:Natick, MA	-	-		0.100	May 2012	-		0.100	Continuing	Continuing	
Modular Glove System Tests	MIPR	PM-SSES:Natick, MA	-	-		0.100	Mar 2012	-		0.100	Continuing	Continuing	
Maritime Comms Testing	MIPR	PM-SSES:Natick, MA	-	-		0.700	Jan 2012	-		0.700	Continuing	Continuing	
PCU Level 3A Development	MIPR	PM-SSES:Natick, MA	-	0.080	Feb 2011	-		-		-	Continuing	Continuing	
Body Armor Threat Validation	MIPR	PM-SSES:Natick, MA	-	0.070	Feb 2011	-		-		-	Continuing	Continuing	
Soft Armor Development	MIPR	PM-SSES:Natick, MA	-	0.249	Feb 2011	-		-		-	Continuing	Continuing	
<b>Subtotal</b>			0.193	0.593		1.191		-		1.191			

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>
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	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.604	0.593	2.100	-	2.100			

**Remarks**





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
Non-Destructive Inspection (NDI) Market Survey																												
Soft Armor Reliability Indicator Design and Test																												
Develop Advanced Soft Armor																												
<b><i>SPEAR Ballistic/Life Support</i></b>																												
Threat Validation																												
<b><i>Body Armor</i></b>																												
Soft Armor Development																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SPEAR Protective Combat Uniform (PCU)</i></b>				
Block II Test Contract	1	2010	2	2011
Block II Fire Retardant Prototyping	4	2010	4	2011
Fire Resistance (FR) Fabric Market Survey	1	2010	2	2010
Phase I FR Baseline Test	3	2010	2	2011
Level 3A Development Exterior Jacket Low Loft	4	2010	2	2011
Phase II FR Block II Testing	3	2011	4	2011
PCU P3I	1	2011	2	2012
Signature Management Profile Refinement Testing	1	2012	4	2016
Materials Research	1	2012	4	2016
<b><i>SPEAR Modular Integrated Communication Helmets</i></b>				
Combatibility Work/Market Research	1	2013	4	2016
Maritime Comms Solicitation/Solicitation Develop	1	2012	2	2013
<b><i>SPEAR Modular Glove System</i></b>				
Market Research, Light Weight Power for Active Heating	1	2012	4	2012
Continued Active Heating Research	1	2013	4	2013
<b><i>SPEAR Load Carriage System, Body Armor Vest (BAV and Backpacks)</i></b>				
LCS/BAV/Backpack Material and Prototyping Testing	3	2012	4	2016
Non-Destructive Inspection (NDI) Market Survey	2	2010	4	2011
Soft Armor Reliability Indicator Design and Test	2	2010	4	2010
Develop Advanced Soft Armor	2	2011	4	2011
<b><i>SPEAR Ballistic/Life Support</i></b>				

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385: <i>SOF Soldier Protection and Survival Systems</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Threat Validation	3	2010	2	2011
<b><i>Body Armor</i></b>				
Soft Armor Development	2	2010	4	2011

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385A: <i>Theater Body Armor and Associated Equipment</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S385A: <i>Theater Body Armor and Associated Equipment</i>	-	-	0.871	-	0.871	0.880	0.425	0.523	0.352	Continuing	Continuing
Quantity of RDT&E Articles			0		0	0	0	0	0		

**Note**

Creation of a separate project for ballistic protection efforts was directed in the National Defense Authorization Act of 2010.

**A. Mission Description and Budget Item Justification**

The Theater Body Armor and associated equipment project develops specialized ballistic protection and associated equipment items for SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Special Tactics Operators; and Marine Forces Special Operations Command. Specialized ballistic equipment improves survivability and mobility of SOF while conducting varied missions. This project supports developmental and test efforts for body armor plates, soft armor, helmets, and eye protection and provides for the research, development, and testing of a variety of body armor and personal protection equipment.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> SOF Personal Equipment Advanced Requirements	-	-	0.871	-	0.871
<b>FY 2012 Base Plans:</b> Conduct temperature ammunition testing and threat validation to assess effectiveness of fielded armor systems. Continue research on advanced non-destructive inspection (N-DI) of body armor systems, and material/density exploitation for quantitative ballistic data in support of a next generation armor plate. Conduct material testing and prototype evaluation of advanced body armor vest designs. Conduct baseline testing and development of specifications for a next generation helmet. Conduct market survey and evaluate transparent armor products in preparation for development of a future Special Operations Eye Protection capability.					
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	0.871	-	0.871

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

N/A

**D. Acquisition Strategy**

SPEAR primarily takes advantage of modified commercial off the shelf (COTS) or non-developmental items through open competition. Majority of these SPEAR purchases are made with O&M. As USSOCOM requirements are different from those of the services, those items leveraged from industry are often on the cutting edge

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>	<b>PROJECT</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	S385A: <i>Theater Body Armor and Associated Equipment</i>

of technology and require substantial testing in the SOF environments. Some SPEAR ballistic systems have transitioned to the U.S. Army, other services and other government agencies.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385A: <i>Theater Body Armor and Associated Equipment</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Body Armor	MIPR	PM-SSES:Natick, MA	-	-		0.300	Feb 2012	-		0.300	Continuing	Continuing	
Next Generation Laser Eye Protection	MIPR	PM-SSES:Natick, MA	-	-		0.025	May 2012	-		0.025	Continuing	Continuing	
Modular Integrated Communications Helmet (NG)	MIPR	PM-SSES:Natick, MA	-	-		0.050	May 2012	-		0.050	Continuing	Continuing	
<b>Subtotal</b>			-	-		0.375		-		0.375			

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Body Armor	MIPR	PM-SSES:Natick, MA	-	-		0.166	Mar 2012	-		0.166	Continuing	Continuing	
Modular Body Armor Vest Test	MIPR	PM-SSES:Natick, MA	-	-		0.005	Mar 2012	-		0.005	Continuing	Continuing	
Body Armor Threat Validation Test	MIPR	PM-SSES:Natick, MA	-	-		0.200	Feb 2012	-		0.200	Continuing	Continuing	
Lightweight Helmet Development	MIPR	PM-SSES:Natick, MA	-	-		0.100	Mar 2012	-		0.100	Continuing	Continuing	
Transparent Armor Tests	MIPR	PM-SSES:Natick, MA	-	-		0.025	Jan 2012	-		0.025	Continuing	Continuing	
<b>Subtotal</b>			-	-		0.496		-		0.496			

<b>Project Cost Totals</b>	<b>Total Prior Years Cost</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	-	-	0.871	-	0.871			

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385A: <i>Theater Body Armor and Associated Equipment</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

<b><i>SPEAR Ballistic/Life Support</i></b>																												
Threat Validation																												
Foreign Ammunition Exploitation Testing																												
Non-Destructive Inspection Dev & Test																												
NG Helmet Requirement																												
Soldier Load Analysis/Study																												
Traumatic Brain Injury																												
Behind Armor Affects																												
Slow Impact Study																												
Material Development/Analysis																												
Blast Study																												
<b><i>Body Armor</i></b>																												
Market Survey (pre-solicitation)																												
Verification Testing (pre-solicitation)																												
Soldier Load Analysis/Study																												
Blast Study																												
Materials/Testing																												
<b><i>SPEAR Eye Protection</i></b>																												
Ballistic & Optical Testing of Transition Lenses																												
Anti-Fogging Development																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160478BB: <i>SOF Soldier Protection and Survival Systems</i>	<b>PROJECT</b> S385A: <i>Theater Body Armor and Associated Equipment</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SPEAR Ballistic/Life Support</i></b>				
Threat Validation	1	2012	4	2016
Foreign Ammunition Exploitation Testing	1	2012	4	2016
Non-Destructive Inspection Dev & Test	1	2012	2	2013
NG Helmet Requirement	1	2012	3	2014
Soldier Load Analysis/Study	1	2012	4	2013
Traumatic Brain Injury	1	2012	4	2013
Behind Armor Affects	1	2012	4	2013
Slow Impact Study	1	2012	4	2013
Material Development/Analysis	1	2012	4	2013
Blast Study	1	2012	4	2013
<b><i>Body Armor</i></b>				
Market Survey (pre-solicitation)	1	2012	1	2012
Verification Testing (pre-solicitation)	1	2012	1	2012
Soldier Load Analysis/Study	1	2012	4	2013
Blast Study	1	2012	4	2013
Materials/Testing	1	2012	4	2014
<b><i>SPEAR Eye Protection</i></b>				
Ballistic & Optical Testing of Transition Lenses	4	2012	1	2014
Anti-Fogging Development	4	2012	3	2014

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	4.764	-	3.000	-	3.000	2.395	-	-	-	0.000	10.159
S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	4.764	-	3.000	-	3.000	2.395	-	-	-	0.000	10.159

**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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	8.533	-	-	-	-
Current President's Budget	4.764	-	3.000	-	3.000
Total Adjustments	-3.769	-	3.000	-	3.000
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-3.663	-			
• SBIR/STTR Transfer	-0.106	-			
• Other Adjustment	-	-	3.000	-	3.000

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S395: *SOF Visual Augmentation, Lasers and Sensor Systems*

Congressional Add: *ASICS Miniaturization for Lasers and Sensors*

	FY 2010	FY 2011
Congressional Add Subtotals for Project: S395	2.390	-
Congressional Add Totals for all Projects	2.390	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>
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**Change Summary Explanation**

Funding:

FY 2010 Decrease of \$3.769 million is due to Sectional 8097 congressional reduction (-\$.012 million), reprogramming to higher command priorities (-\$.863 million) and the transfer of two congressional adds to the correct Program Element as follows: Thermal Pointer/Illuminator for Force Protection (-\$1.593 million) and Miniature Day Night Sight for Crew Served Weapons (-\$1.195 million), and a transfer of funds for Small Business Innovative Research (-\$.106 million).

FY 2011 None.

FY 2012 Increase provides for fusion goggle efforts (\$3.000 million).

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	<b>PROJECT</b> S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	4.764	-	3.000	-	3.000	2.395	-	-	-	0.000	10.159
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for development, testing and integration of specialized visual augmentation, laser and sensor system equipment to meet the unique requirements of Special Operations Forces. Specialized equipment will permit small, highly trained forces to conduct required operations within 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, terrorist, or highly sophisticated threat mandates that SOF systems remain technologically superior to enemy threats to ensure mission success.

- Precision Laser Targeting Device (PLTD). This program combines 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 precise delivery of GPS-guided munitions. The system will greatly reduce fratricide incidents and reduce collateral damage during close air support missions.
- Visual Augmentation System Binocular/Monocular (VAS-B/M). This program procures head/helmet mounted night vision system goggle systems. These goggles provide the SOF operator the ability to maneuver, conduct fire control operations, and perform surveillance and reconnaissance. Research and development efforts will develop the next generation of digital fusion goggle.
- Application Specific Integrated Circuit Sensor (ASICS) Miniaturization for Lasers and Sensors. This FY 2010 congressional add evaluates SOF system specific electronics for chip miniaturization resulting in potential system level power and weight savings.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Precision Laser Targeting Device (PLTD) Block 1	1.960	-	-	-	-
<b>FY 2010 Accomplishments:</b> Continued effort to reduce size, weight and accuracy to meet the warfighter requirements.					
<b>Title:</b> Visual Augmentation Systems Binocular/Monocular	0.414	-	3.000	-	3.000
<b>FY 2010 Accomplishments:</b>					

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	<b>PROJECT</b> S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Procured three prototype systems with different video formats for evaluation.					
<b><i>FY 2012 Base Plans:</i></b> Initiates the development of the next generation digital fusion goggle to improve situational awareness, sharing of data/images and target acquisition in a form factor and cost suitable for SOF missions.					
<b>Accomplishments/Planned Programs Subtotals</b>	2.374	-	3.000	-	3.000

	FY 2010	FY 2011
<b><i>Congressional Add:</i></b> ASICS Miniaturization for Lasers and Sensors	2.390	-
<b><i>FY 2010 Accomplishments:</i></b> Initiated the evaluation of SOF system circuits for miniaturization.		
<b>Congressional Adds Subtotals</b>	2.390	-

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• PROC1: <i>VISUAL AUGMENTATION, LASERS AND SENSOR SYSTEMS</i>	35.181	21.826	15.758	3.531	19.289	15.191	10.337	7.282	8.116	Continuing	Continuing	

- D. Acquisition Strategy**
- Precision Laser Targeting Device (PLTD). This program leverages 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.
  - Visual Augmentation System Binocular/Monocular (VAS-B/M). Develops the SOF next generation digital fusion goggles, leveraging Science and Technology funds to narrow down the promising digital solutions. Will utilize FY 2012 and FY 2013 RDT&E funds to further develop and improve product samples.
  - ASICS Miniaturization for Lasers and Sensors. Evaluates the miniaturization of SOF integrated circuitry.

**E. Performance Metrics**  
N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	<b>PROJECT</b> S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b><i>Precision Laser Targeting Device (PLTD)</i></b>																												
Develop the Ruggedized PLTD																												
<b><i>Visual Augmentation System Binocular/Monocular</i></b>																												
Evaluate Prototypes																												
Develop Next Generation Digital Fusion Goggle																												
Integrate and Test Next Generation Digital Fusion Goggle																												
<b><i>ASICS Miniaturization for Lasers and Sensors</i></b>																												
Evaluate of SOF Circuit Miniaturization																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160479BB: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>	<b>PROJECT</b> S395: <i>SOF Visual Augmentation, Lasers and Sensor Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Precision Laser Targeting Device (PLTD)</i></b>				
Develop the Ruggedized PLTD	2	2010	2	2011
<b><i>Visual Augmentation System Binocular/Monocular</i></b>				
Evaluate Prototypes	2	2010	4	2010
Develop Next Generation Digital Fusion Goggle	3	2012	3	2013
Integrate and Test Next Generation Digital Fusion Goggle	2	2013	2	2014
<b><i>ASICS Miniaturization for Lasers and Sensors</i></b>				
Evaluate of SOF Circuit Miniaturization	4	2010	4	2011

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160480BB: <i>SOF Tactical Vehicles</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.145	1.994	3.522	-	3.522	3.819	2.259	2.298	2.336	Continuing	Continuing
S910: <i>SOF Tactical Vehicles</i>	2.145	1.994	3.522	-	3.522	3.819	2.259	2.298	2.336	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the development and testing of a variety of spiral upgrades to Special Operations Vehicles and ancillary equipment. The current SOF tactical vehicles include: All Terrain Vehicles and Lightweight All Terrain Vehicles (Individual), Light Mobility Vehicles (Light), Ground Mobility Vehicles (Medium), Non-Standard Commercial Vehicles (Commercial) for use in tactical missions, and Mine Resistant Ambush Protected Vehicles (Heavy). The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	1.965	1.994	2.027	-	2.027
Current President's Budget	2.145	1.994	3.522	-	3.522
Total Adjustments	0.180	-	1.495	-	1.495
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-0.008	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.250	-			
• SBIR/STTR Transfer	-0.062	-			
• Other Adjustment	-	-	1.495	-	1.495

**Change Summary Explanation**

Funding:

FY 2010 Net increase \$0.180 due to Congressional general reduction (-\$0.008 million), a reprogramming to support higher command priorities (\$0.250 million), and a transfer of funding for Small Business Innovative Research (-\$0.062 million).

FY 2011 None.

FY 2012 Increase supports C4ISR Single Joint Platform development, system integration and test (\$1.495 million).

Schedule: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

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

**R-1 ITEM NOMENCLATURE**  
PE 1160480BB: *SOF Tactical Vehicles*

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160480BB: <i>SOF Tactical Vehicles</i>	<b>PROJECT</b> S910: <i>SOF Tactical Vehicles</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S910: <i>SOF Tactical Vehicles</i>	2.145	1.994	3.522	-	3.522	3.819	2.259	2.298	2.336	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project develops, tests, and evaluates Special Operations vehicles and modifications. The Special Operations Forces (SOF) mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability. The current family of SOF tactical vehicles include: individual mobility vehicles, light mobility vehicles, medium mobility vehicles, non-standard commercial vehicles and heavy mobility vehicles. Sub-projects include:

- Family of Special Operaitons Vehicles. This initiative provides for product improvements in the areas of suspension, power management, armor protection and unique vehicle design for all SOF tactical vehicle configurations. Improvements include, but are not limited to, new engineering change proposals (ECPs), field safety issues and theater endorsed requirements that make it essential to keep up with the increased weight and minimize the impact to mobility on the basic vehicle. Also develops, integrates and tests Command, Control, Communications, Computers, and Intelligence, Surveillance and Reconnaissance (C4ISR) systems in order to reduce space and power claim on vehicles.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Family of Special Operations Vehicle	2.145	1.994	3.522	-	3.522
<b>FY 2010 Accomplishments:</b> Initiated development of ECPs that implement spiral upgrades and improve the design and manufacturing process for the medium mobility tactical vehicles currently in production.					
<b>FY 2011 Plans:</b> Continue development of ECPs that implement spiral upgrades and improve the design of the medium mobility vehicles.					
<b>FY 2012 Base Plans:</b> Continue development of ECPs that implement spiral upgrades and improve the design of the medium mobility vehicles, to include development, integration and testing of a Single Joint Platform C4ISR solution.					
<b>Accomplishments/Planned Programs Subtotals</b>	2.145	1.994	3.522	-	3.522

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160480BB: <i>SOF Tactical Vehicles</i>	<b>PROJECT</b> S910: <i>SOF Tactical Vehicles</i>

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>			<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• PROC: <i>TACTICAL VEHICLES</i>	374.594	67.227	35.231	15.818	51.049	35.972	32.136	42.047	43.103	Continuing	Continuing

**D. Acquisition Strategy**

- Vehicle improvements integrate emerging technology or commercial-off-the-shelf/non-developmental items. Material solutions will be procured via existing contracts or through a competitive procurement.

**E. Performance Metrics**

N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160480BB: <i>SOF Tactical Vehicles</i>	<b>PROJECT</b> S910: <i>SOF Tactical Vehicles</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b><i>C4ISR Engineering Change Proposal Developmental Test Support</i></b>																												
C4ISR Engineering Change Proposal Developmental Test Support																												
<b><i>Engineering Change Proposal Developmental Test Support</i></b>																												
Engineering Change Proposal Developmental Test Support																												
<b><i>Medium Mobility Vehicle Engineering Change Proposal Development</i></b>																												
Medium Mobility Vehicle Engineering Change Proposal Development																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160480BB: <i>SOF Tactical Vehicles</i>	<b>PROJECT</b> S910: <i>SOF Tactical Vehicles</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>C4ISR Engineering Change Proposal Developmental Test Support</i></b>				
C4ISR Engineering Change Proposal Developmental Test Support	4	2010	4	2016
<b><i>Engineering Change Proposal Developmental Test Support</i></b>				
Engineering Change Proposal Developmental Test Support	3	2010	4	2016
<b><i>Medium Mobility Vehicle Engineering Change Proposal Development</i></b>				
Medium Mobility Vehicle Engineering Change Proposal Development	3	2010	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>			PE 1160481BB: <i>SOF Munitions</i>								
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	-	1.500	-	1.500	1.497	-	-	-	0.000	2.997
S800: <i>SO Munitions Advanced Development</i>	-	-	1.500	-	1.500	1.497	-	-	-	0.000	2.997

**Note**

There are prior year funds being obligated against the Insensitive Munitions requirement. However, according to the "New Start" criteria, the FY 2012 RDT&E request constitutes a New Start since there is more than one skip year in the appropriation. Prior to FY 2010, the Insensitive Munitions RDT&E was executed under Program Element 1160404BB.

**A. Mission Description and Budget Item Justification**

This program element provides for the advanced engineering operational system development and qualification efforts related to SOF-peculiar munitions and equipment. Develops Insensitive Munitions (IM) technology and evaluation in accordance with statutory requirement set forth in Chapter 141 of Title 10, United States Code, Section 2389 (includes bullet impact, fragment impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test). Testing is in accordance with the United States Special Operations Command IM Strategic Plan.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	1.500	-	1.500
Total Adjustments	-	-	1.500	-	1.500
• Congressional General Reductions					
• Congressional Directed Reductions					
• Congressional Rescissions	-	-			
• Congressional Adds					
• Congressional Directed Transfers					
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	1.500	-	1.500

**Change Summary Explanation**

Funding:

FY 2010 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

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

**R-1 ITEM NOMENCLATURE**  
PE 1160481BB: *SOF Munitions*

FY 2011 None.

FY 2012 Increase of \$1.500 million will support the statutory requirement to provide IM testing for the safety of USSOCOM unique ammunition.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160481BB: <i>SOF Munitions</i>	<b>PROJECT</b> S800: <i>SO Munitions Advanced Development</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S800: <i>SO Munitions Advanced Development</i>	-	-	1.500	-	1.500	1.497	-	-	-	0.000	2.997
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project funds advanced engineering, operational system development and qualification efforts related to specialized munitions and equipment.

Sub-projects include:

- ◆ Non-Standard Materiel (NSM). Provides for insensitive munitions (IM) technology development and evaluation that allows Special Operations Forces munitions to pass testing, which includes bullet impact, fragment impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test. Testing is in accordance with the United States Special Operations Command IM Testing Plan.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<b>Title:</b> Non-Standard Materiel	-	-	1.500	-	1.500
<b>FY 2012 Base Plans:</b> Conducts proof of principle and IM testing on various munitions, then full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	1.500	-	1.500

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC: <i>ORDNANCE ACQUISITION</i>	37.383	73.991	28.281	25.400	53.681	41.649	43.465	51.538	52.524	Continuing	Continuing

**D. Acquisition Strategy**

Munitions and packaging redesign shall take place within government laboratories, as well as in industry, depending on the munitions. IM solutions shall be tested on a small scale for proof of principle.

**E. Performance Metrics**

N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160481BB: <i>SOF Munitions</i>	<b>PROJECT</b> S800: <i>SO Munitions Advanced Development</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>Non-Standard Materiel</b>																												
Purchase Test Articles																												
<b>Evaluate IM</b>																												
Evaluate IM																												
<b>Test IM</b>																												
Test IM																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160481BB: <i>SOF Munitions</i>	<b>PROJECT</b> S800: <i>SO Munitions Advanced Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Non-Standard Materiel</i></b>				
Purchase Test Articles	2	2012	2	2013
<b><i>Evaluate IM</i></b>				
Evaluate IM	2	2012	4	2013
<b><i>Test IM</i></b>				
Test IM	2	2012	4	2013



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>			<b>R-1 ITEM NOMENCLATURE</b>								
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>			PE 1160482BB: <i>SOF Rotary Wing Aviation</i>								
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	71.441	14.473	51.123	-	51.123	35.551	38.776	13.539	3.140	Continuing	Continuing
D615: <i>SOF Rotary Wing Aviation</i>	71.441	14.473	51.123	-	51.123	35.551	38.776	13.539	3.140	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element develops SOF-unique modifications and upgrades to SOF rotary wing aircraft that operate in increasingly hostile environments. Rotary wing aircraft supported by this project include: MH-60L/M, MH-47G, and A/MH-6M. These aircraft provide aviation support to Special Operations Forces (SOF) in worldwide contingency operations and low-intensity conflicts. They must be capable of rapid deployment; undetected penetration of hostile areas; and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	18.784	14.473	2.891	-	2.891
Current President's Budget	71.441	14.473	51.123	-	51.123
Total Adjustments	52.657	-	48.232	-	48.232
• Congressional General Reductions				-	
• Congressional Directed Reductions				-	
• Congressional Rescissions	-			-	
• Congressional Adds				-	
• Congressional Directed Transfers				-	
• Reprogrammings	53.253			-	
• SBIR/STTR Transfer	-0.596			-	
• Other Adjustment	-		48.232	-	48.232

**Change Summary Explanation**

FY 2010 Net increase is due to a 1415-1 Prior Approval (PA 10-11, dated 28 June 2010) reprogramming action (\$23.348 million), a reprogramming to program element 1160408BB, SOF Operational Enhancements (\$0.677 million), an increase of Supplemental funding (\$25.000 million) (will be reprogrammed to U.S. Navy to support Marine forces for Cargo UAS efforts), an increase of Supplemental funding for a 1415-1 prior approval reprogramming action (PA 10-24, dated 28 September 2010) for Multiple Hit Transparent Armor (\$5.582 million), and a transfer of funds to Small Business Innovative Research (-\$0.596 million).

FY 2011 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160482BB: <i>SOF Rotary Wing Aviation</i>

FY 2012 Increase is due to the start of the A/MH-6M Block 3.0 Upgrade (\$18.765 million), MH-47G Engine Automatic Re-light (\$2.563 million), MH-60M flight testing (\$22.782 million) and increased MH-47 modifications (\$5.122 million). Remaining funding (-\$1.000 million) was moved to support higher command priorities.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
D615: <i>SOF Rotary Wing Aviation</i>	71.441	14.473	51.123	-	51.123	35.551	38.776	13.539	3.140	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project develops/upgrades SOF rotary wing aircraft systems that operate in increasingly hostile environments. Rotary wing aircraft supported by this project include: MH-60L/M, MH-47G, and A/MH-6M. These aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts, and they must be capable of rapid deployment; undetected penetration of hostile areas; and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters. Sub-projects include:

- A/MH-6M Block 3.0 Upgrade includes development of an integrated digital moving map, upgraded multifunctional displays, improved communication/navigation suites, lightweight mission processor, structural upgrades, and next generation main/tail rotor systems. This upgrade modification will increase safety margins and increase operational capabilities at higher altitude and temperature conditions. This program is a new start for FY 2012.
- The A/MH-6 Improved Seat system will provide a crashworthy ballistic protection, crash attenuation, and restraint system upgrades to prevent severe injury to Army Special Operations Aviation (ARSOA) pilots. The Center for Army Lessons Learned reported that over a three year period, 50 ARSOA pilots suffered serious back injuries and were grounded due to hard landings.
- Hostile Fire Indicating System (HFIS) detects, classifies, and alerts the aircrew to the presence of small caliber weapons fire for SOF MH-47/60 platforms. By providing detection and angle of arrival information, the HFIS will allow the aircrew to perform evasive and counter-fire actions significantly increasing the aircraft's probability of survival.
- The MH-47 Engine Automatic Re-Light (EARL) system will detect the presence of an impending or an in-progress engine flameout event and re-establish combustion within the engine to avoid an actual engine flameout. EARL will recognize the event much faster than a pilot and then proceed to reignite/restart the engine while monitoring and adjusting engine parameters including the ignition system and fuel flow scheduling. EARL is required to address safety issues in the MH-47 fleet where engine flameout has been cited as one of the probable causes of the loss of an MH-47G with loss of life in support of Operation Enduring Freedom. This program is a new start for FY 2012.
- MH-47 Low Cost Modifications program is an effort to integrate an improved Common Rotor Blade (CRB) being developed by the Army into the MH-47G. This program is a new start for FY 2012.
- MH-60 SOF Modernization program provides for the systems engineering and platform integration efforts, to include continued flight and qualification testing and test support.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>
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- Next Generation Forward Looking Infrared Radar (NGFLIR) develops and qualifies a laser rangefinder/designator (LRF/D) for the AN/ZSQ-3 Electro Optical Sighting System (EOSS).
- Reduced Optical Signature Emission Solution (ROSES) program reduces the optical signature output of the current infrared expendable decoys for purposes of reducing ARSOA aircraft vulnerabilities. This flare solution will have the capability to decoy currently fielded infrared missiles and more sophisticated emerging threats, and is an interim solution pending flare technology advancements.
- The YMQ-18A Cargo Unmanned Aerial System (UAS) will develop a cargo resupply modification. This effort will be transferred to the U.S. Navy in support of U.S. Marine forces cargo resupply efforts.
- Aircraft Occupant Ballistic Protection System (AOBPS) Multiple Hit Transparent Armor effort develops and operationally assesses the lightweight armor on the MH-47 and MH-60 platforms. These components replace panels and windows to increase aircrew and passenger safety and survivability.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Title:</b> A/MH-6M Block 3.0 Upgrade <b>FY 2012 Plans:</b> Begins development of cockpit upgrades, improved rotor systems, and upgrades to airframe.	-	-	18.765
<b>Title:</b> A/MH-6 Improved Seat System <b>FY 2010 Accomplishments:</b> Began development of integrated crashworthy seat system for the A/MH-6M. <b>FY 2011 Plans:</b> Completes development of integrated crashworthy seat system for the A/MH-6M.	3.564	2.852	-
<b>Title:</b> Hostile Fire Indicating System (HFIS) <b>FY 2010 Accomplishments:</b> Began development of the detection, classification and alert systems for the HFIS. <b>FY 2011 Plans:</b> Completes development of the detection, classification and alert systems for the HFIS.	2.473	3.954	-
<b>Title:</b> MH-47 Engine Automatic Re-Light (EARL) <b>FY 2012 Plans:</b> Begins development of the MH-47 fleet EARL system.	-	-	2.563
<b>Title:</b> MH-47 Low Cost Modifications	-	-	5.122

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>FY 2012 Plans:</b> Begins integration of the Army's improved common rotor blade into the MH-47G.				
<b>Title:</b> MH-60 SOF Modernization Program		22.699	-	22.782
<b>FY 2010 Accomplishments:</b> Continued systems integration and qualification efforts on one prototype MH-60M helicopter.				
<b>FY 2012 Plans:</b> Completes systems integration and qualification efforts on one prototype MH-60M helicopter.				
<b>Title:</b> Next Generation FLIR		8.351	3.732	-
<b>FY 2010 Accomplishments:</b> Began development of Next Generation FLIR Laser rangefinder/designator (LRF/D) program.				
<b>FY 2011 Plans:</b> Completes development, integration and qualification of LRF/D for the AN/ZSQ-3 Electrical Optical Sighting System.				
<b>Title:</b> Reduced Optical Signature Emissions Solution (ROSES)		3.772	3.935	1.891
<b>FY 2010 Accomplishments:</b> Began development of ROSES as a flare solution offering enhanced aircraft survivability.				
<b>FY 2011 Plans:</b> Continue development of ROSES.				
<b>FY 2012 Plans:</b> Completes development of ROSES.				
<b>Title:</b> YMQ-18A Cargo UAS		25.000	-	-
<b>FY 2010 Accomplishments:</b> This funding will be transferred to the U.S. Navy in support of the U.S. Marine Cargo resupply efforts. This funding is Supplemental.				
<b>Title:</b> Aircraft Occupant Ballistic Protection System (AOBPS) Multiple Hit Transparent Armor		5.582	-	-
<b>FY 2010 Accomplishments:</b>				

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012
Began development of the AOBPS Multiple Hit Transparent Armor for the MH-47 and MH-60 helicopters. This funding is Supplemental.			
<b>Accomplishments/Planned Programs Subtotals</b>	71.441	14.473	51.123

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC2: ROTARY WING UPGRADES AND SUSTAINMENT	93.676	85.440	41.411	0.000	41.411	86.803	93.132	140.900	160.514	Continuing	Continuing

- D. Acquisition Strategy**
- A/MH-6M Block 3.0 Upgrade - This effort develops and qualifies several aircraft improvements such as an integrated digital moving map, upgraded multifunctional displays, improved communication/navigation suites, lightweight mission processor, structural upgrades, and next generation main and tail rotor systems. This effort is critically required to make the A/MH-6M more relevant on the battlefield today and well into 2020 decade. This effort will increase safety margins and increase operational capabilities at higher altitude and temperature conditions. Competitive source selection processes will be conducted for the Block 3.0 upgrades to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.
  
  - A/MH-6M Improved Seat System - This effort develops and qualifies an integrated ballistic tolerant, ergonomic, and crashworthy crew seat system for the A/MH-6M fleet. This modification will provide critical protection from crash loads and airframe vibrations by upgrading the current A/MH-6M seat and restraint system. A competitive source selection process will be conducted for the crashworthy seat system replacement to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.
  
  - HFIS - This effort will develop, integrate, install, and field the capability to detect, classify, and alert the aircrew to the presence of small arms fire, Anti-Aircraft Artillery, and Rocket Propelled Grenades. HFIS will allow aircrews to perform evasive and counter-fire actions, which will increase aircraft survivability and mission success. A competitive source selection process will be conducted for the HFIS effort to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.
  
  - MH-47 EARL System - This effort develops and qualifies a solution to address safety issues in the MH-47 fleet through the development, test, qualification, and fielding of changes to the engine control system to perform automatic engine failure detection and flame-out protection. A competitive source selection process will be conducted for the EARL system to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.
  
  - MH-47 Low Cost Modification to integrate the Army CRB - This effort integrates and qualifies a CRB solution that significantly increases payload capability, expands forward flight envelope, improves manufacturing and maintenance characteristics, and maintains commonality with the Army. As the MH-47 CRB integration

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command	<b>DATE:</b> February 2011
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<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>	<b>PROJECT</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	D615: <i>SOF Rotary Wing Aviation</i>

leverages Army CRB development activities with the original equipment manufacturer, this effort will consist mostly of Government executed integration, testing, and qualification efforts with some analytical engineering services to be procured. Because of proprietary considerations, efforts may be directed to the original equipment manufacturer.

- MH-60M SOF Modernization Program - This supports the Systems Integration and Qualification efforts on the prototype MH-60M helicopter. This includes, but is not limited to, government and contractor flight test support, engineering analysis, documentation, and airworthiness substantiation. There are no proprietary considerations that may direct some efforts to the original equipment manufacturer.
- NGFLIR - Develops, integrates and qualifies the laser rangefinder and designator to the AN/ZSQ-3 and develops a drop-in, advanced, dual-color (long and mid-wave) IR detector upgrade for the AN/ZSQ-2. NGFLIR will be installed on the MH-47/60 and AH-6M platforms within the ARSOA fleet. Proprietary considerations may direct some efforts to the original equipment manufacturer.
- ROSES - This effort develops and qualifies a flare solution that discharges fewer expendables per dispense and emits less visible light to improve aircrew's ability to survive in sophisticated threat environments. A competitive source selection process will be conducted for the ROSES to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.
- YMQ-18A - This funding will be transferred to the U.S. Navy in support of the U.S. Marine forces cargo resupply efforts.
- AOBPS Multiple Hit Transparent Armor - This effort develops and operationally assesses the lightweight armor on the MH-47 and MH-60 platforms. A competitive source selection process will be conducted for the AOBPS effort to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A/MH-6M Block 3.0 Upgrades	C/Various	PM MELB:Ft. Eustis, VA.	-	-		18.765	Jan 2012	-		18.765	Continuing	Continuing	
A/MH-6M Improved Seat System	C/Various	PM MELB:Ft. Eustis, VA.	3.564	2.852	Jan 2011	-		-		-	0.000	6.416	
Hostile Fire Indicating System	C/Various	PM TAPO:Ft. Eustis, VA.	3.272	3.954	Jan 2011	-		-		-	0.000	7.226	
MH-47G Engine Automatic Re-Light	C/Various	PM TAPO:Ft. Eustis, VA.	-	-		2.563	Jan 2012	-		2.563	Continuing	Continuing	
MH-47G Low Cost Mods	C/Various	PM TAPO:Ft. Eustis, VA.	-	-		5.122	Jan 2012	-		5.122	Continuing	Continuing	
Next Generation Forward Looking Infrared Radar	C/Various	PM TAPO:Ft. Eustis, VA.	33.874	3.732	Jan 2011	-		-		-	0.000	37.606	
Reduced Optical Signature Emissions Solution	C/Various	PM TAPO:Ft. Eustis, VA.	3.772	3.935	Jan 2011	1.891	Jan 2012	-		1.891	0.000	9.598	
Prior Years	Various	Various:Various	31.670	-		-		-		-	0.000	31.670	
<b>Subtotal</b>			76.152	14.473		28.341		-		28.341			

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60 SOF Modernization Program	C/Various	PM TAPO:Ft. Eustis, VA.	23.348	-		22.782	Jan 2012	-		22.782	0.000	46.130	
Prior Years	Various	Various:Various	15.836	-		-		-		-	0.000	15.836	
<b>Subtotal</b>			39.184	-		22.782		-		22.782	0.000	61.966	

**Remarks**  
 USSOCOM has requested Congress to transfer and appropriate \$22.565 million in FY2011 RDT&E from the Procurement account to support continued MH-60M flight loads testing.





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
A/MH-6M Block 3.0 Development/Qualification/Testing																												
A/MH-6M Improved Seat System Development																												
Hostile Fire Indicating System																												
MH-47G Engine Automatic Re-Light Development/Qualification/Test																												
MH-47G Low Cost Mods Qualification/Testing																												
MH-60 SOF Modernization Program Qualification/Testing																												
NGFLIR Development/Qualification/Testing for AN/ZSQ-3																												
NGFLIR Development/Qualification/Testing for AN/ZSQ-2																												
Reduced Optical Signature Emissions Solution Development/Qualification/Test																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160482BB: <i>SOF Rotary Wing Aviation</i>	<b>PROJECT</b> D615: <i>SOF Rotary Wing Aviation</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
A/MH-6M Block 3.0 Development/Qualification/Testing	2	2012	1	2015
A/MH-6M Improved Seat System Development	4	2010	2	2012
Hostile Fire Indicating System	2	2010	4	2011
MH-47G Engine Automatic Re-Light Development/Qualification/Test	2	2012	4	2014
MH-47G Low Cost Mods Qualification/Testing	2	2012	4	2016
MH-60 SOF Modernization Program Qualification/Testing	1	2010	4	2012
NGFLIR Development/Qualification/Testing for AN/ZSQ-3	2	2010	4	2011
NGFLIR Development/Qualification/Testing for AN/ZSQ-2	2	2014	3	2015
Reduced Optical Signature Emissions Solution Development/Qualification/Test	2	2010	4	2012

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	24.238	13.986	92.424	-	92.424	104.988	107.515	32.219	0.247	Continuing	Continuing
S0417: <i>SOF Underwater Systems</i>	24.238	13.986	92.424	-	92.424	104.988	107.515	32.219	0.247	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for engineering & manufacturing development and operational systems development of small combat underwater submersibles and underwater support systems and equipment. This program element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by Special Operations Forces (SOF) in the conduct of infiltration/extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	18.774	13.986	8.461	-	8.461
Current President's Budget	24.238	13.986	92.424	-	92.424
Total Adjustments	5.464	-	83.963	-	83.963
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	5.567	-			
• SBIR/STTR Transfer	-0.103	-			
• Other Adjustment	-	-	83.963	-	83.963

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S0417: *SOF Underwater Systems*

- Congressional Add: *Undersea Special Warfare Engineering Support Office*
- Congressional Add: *Transformer Technology for Combat Submersibles*
- Congressional Add: *Technology for Shallow Water Special Operations Forces Mobility*
- Congressional Add: *Alternative SOF Submersible Concept Design Study*
- Congressional Add: *Future Dry Deck Shelter*

	FY 2010	FY 2011
	1.992	-
	3.585	-
	2.868	-
	0.996	-
	4.381	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>
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**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

Congressional Add: *Non-Gasoline Burning Outboard Engine*

Congressional Add Subtotals for Project: S0417

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	3.034	-
	16.856	-
	16.856	-

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$5.464 million due to a decrease for Small Business Innovation Research Transfer (-\$.103 million), an increase of \$1.514 million for Non-Gasoline Burning Outboard Engine congressional add reprogrammed from the Navy, a reprogramming increase of \$4.058 million from the Joint Multi-Mission Submersible program and a decrease of (\$.005 million) for higher headquarters priorities.

FY 2011 None.

FY 2012 Net increase of \$83.963 million due to new SOF Undersea Mobility Strategy and the reallocation of resources from the Joint Multi-Mission Submersible program (\$84.131 million) and a decrease due to an economic adjustment (-\$.168 million).

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S0417: <i>SOF Underwater Systems</i>	24.238	13.986	92.424	-	92.424	104.988	107.515	32.219	0.247	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for engineering & manufacturing development and operational systems development of small combat underwater submersibles and underwater support systems and equipment. Also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by Special Operations Forces (SOF) in the conduct of infiltration/extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. Sub-projects include:

- **Combat Submersibles:** Includes conducting product improvement efforts for the in-service SEAL Delivery Vehicle MK 8 and conducting technology development and engineering & manufacturing development for the follow-on combat submersibles such as the various types of shallow water combat submersibles. The shallow water combat submersibles use an evolutionary acquisition approach to develop a family of submersibles, to include a new wet submersible capable of operating from existing Dry Deck Shelters, and more capable wet or dry submersibles that will operate from future large submarine shelters/systems and/or surface ships. The combat submersible sub-project leverages existing SEAL Delivery Vehicle components, develops new state-of-the-art components where appropriate, and leases or purchases commercial-off-the-shelf components and vehicles for test and evaluation and operational assessment.
- **Underwater Support Systems and Equipment:** Includes conducting product improvement efforts for in-service submarine support systems such as the Dry Deck Shelters, unmanned underwater vehicles such as the Semi-autonomous Hydrographic Reconnaissance Vehicle, and diver equipment such as the Hydrographic Mapping Unit, Non-gasoline Burning Outboard Engines and Diver Propulsion Devices. Also provides for technology development and engineering & manufacturing development for follow-on underwater support systems and equipment.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Shallow Water Combat Submersible	5.324	13.986	29.637
<b>FY 2010 Accomplishments:</b> Continued concept and technology development for a new Shallow Water Combat Submersible and conducted source selection activities.			
<b>FY 2011 Plans:</b> Continues design and development for a new Shallow Water Combat Submersible capability.			
<b>FY 2012 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Complete critical design review for Block I and conducts developmental test.				
<b>Title:</b> Dry Combat Submersible		1.558	-	13.455
<b>FY 2010 Accomplishments:</b> Established program team and developed methods and procedures for certification of dry combat submersibles. Continued design and engineering assessment efforts for commercial combat submersibles prototypes.				
<b>FY 2012 Plans:</b> Procure government furnished equipment, completes prototyping efforts for advanced technology demonstrators and completes American Bureau of Shipping certification efforts. Conduct user operational evaluation of alternative submersible concepts using commercial dry submersible technology to demonstrate key system attributes. Project initiated as part of Congressional Adds: Alternate SOF Submersible Concept Design Study in Program Element 1160483BB.				
<b>Title:</b> Dry Combat Submersible Light		-	-	35.832
<b>FY 2012 Plans:</b> Design, develop, build and test dry combat submersibles using low cost component technologies. Project initiated as part of FY 2010 Congressional Add: Alternative SOF Submersible Concept Design Study in Program Element 1160483BB.				
<b>Title:</b> Dry Deck Shelter Modifications		-	-	11.500
<b>FY 2012 Plans:</b> Design and develop modifications required to current Dry Deck Shelter to accommodate various combat submersibles. Major modifications may include, but are not limited to, a length extension.				
<b>Title:</b> Dry Deck Shelter		0.500	-	2.000
<b>FY 2010 Accomplishments:</b> Established program team and begin development plans for dry deck shelter modifications to support SOF Undersea Mobility objectives.				
<b>FY 2012 Plans:</b> Conduct Analysis of Alternatives for next generation shelter to accommodate family of combat submersibles. Continue FY 2010 Congressional Add for Future Dry Deck Shelter in Program Element 1160483BB.				
<b>Accomplishments/Planned Programs Subtotals</b>		7.382	13.986	92.424
		<b>FY 2010</b>	<b>FY 2011</b>	
<b>Congressional Add:</b> Undersea Special Warfare Engineering Support Office		1.992	-	

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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	FY 2010	FY 2011
<b>FY 2010 Accomplishments:</b> Provided engineering support for combat submersibles, support systems and equipment.		
<b>Congressional Add:</b> Transformer Technology for Combat Submersibles <b>FY 2010 Accomplishments:</b> Developed and tested advanced transformer technology.	3.585	-
<b>Congressional Add:</b> Technology for Shallow Water Special Operations Forces Mobility <b>FY 2010 Accomplishments:</b> Continued to develop advanced hull technologies and alternatives for combat submersibles.	2.868	-
<b>Congressional Add:</b> Alternative SOF Submersible Concept Design Study <b>FY 2010 Accomplishments:</b> Developed designs for low-cost dry submersible technologies, components and systems.	0.996	-
<b>Congressional Add:</b> Future Dry Deck Shelter <b>FY 2010 Accomplishments:</b> Performed initial studies and analysis of potential designs for next generation dry deck shelter capability.	4.381	-
<b>Congressional Add:</b> Non-Gasoline Burning Outboard Engine <b>FY 2010 Accomplishments:</b> Developed and tested incremental capabilities of the Non-Gasoline Burning Outboard Engines.	3.034	-
<b>Congressional Adds Subtotals</b>	16.856	-

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PROC1: <i>Underwater Systems</i>	0.000	0.000	6.999	0.000	6.999	40.333	98.589	114.327	164.474	Continuing	Continuing
• PROC2: <i>MK8 MOD1 SEAL Delivery Vehicle</i>	1.458	0.823	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.281

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC3: <i>Maritime Equip</i>	2.768	0.804								0.000	3.572

**D. Acquisition Strategy**

- **Combat Submersibles:** The acquisition strategy for Block I will use full and open competition and competitive prototyping to award contracts to develop and produce test articles with options to produce production systems and provide interim contractor support. The acquisition strategy for other combat submersible systems is under development. Additionally, existing contracts are utilized where appropriate for various component development and prototypes.
- **Underwater Support Systems & Equipment:** Existing contracts are utilized where appropriate, and various new contracts are awarded as necessary.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Shallow Water Combat Submersible (BLK 1)	C/Various	Teledyne Brown Engineering, Huntsville, AL and/or Columbia Group:Panama City, FL	1.887	9.867	Jun 2011	23.235	Jun 2012	-		23.235	10.424	45.413	
Dry Combat Submersibles	C/Various	TBD:TBD	-	-		8.955	May 2012	-		8.955	15.222	24.177	
Dry Combat Submersibles Light	C/Various	TBD:TBD	-	2.000	Jan 2011	24.832	Jun 2012	-		24.832	12.500	39.332	
Dry Deck Shelter Mods	C/Various	TBD:TBD	-	-		9.000	May 2012	-		9.000	0.000	9.000	
Technology for Shallow Water Mobility	C/FFP	Columbia Group:Panama City, FL	5.263	-		-		-		-	0.000	5.263	
Alt SOF Submersible Concept Design Study	SS/FFP	Submergence Group:Chester, CT	0.996	-		-		-		-	0.000	0.996	
Alt Transformer Technology for Combat Submersibles	C/FFP	STIDD Systems:Greenport, NY	3.585	-		-		-		-	0.000	3.585	
Dry Deck Shelter Future	C/Various	Electric Boat:Groton, CT	4.381	-		-		-		-	0.000	4.381	
Undersea Special Warfare Eng Spt	C/Various	TBD:TBD	1.992	-		-		-		-	0.000	1.992	
Non-Gasoline Burning Outboard Engine	C/Various	TBD:TBD	3.034	-		-		-		-	0.000	3.034	
<b>Subtotal</b>			21.138	11.867		66.022		-		66.022	38.146	137.173	

<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Shallow Water Combat Submersibles (BLK 1)	C/Various	NSWC and NAVSEA:Panama City, FL and Washington, DC	0.882	0.900	Jan 2011	0.900	Jan 2012	-		0.900	0.200	2.882	
Dry Combat Submersibles	C/Various	TBD:TBD	-	-		2.000	Nov 2011	-		2.000	2.000	4.000	
Dry Combat Submersibles Light	C/Various	Various:Various	-	-		7.000	Dec 2011	-		7.000	7.000	14.000	

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Next Gen Submarine Shelter	C/Various	Various:Various	-	-		2.000		-		2.000	Continuing	Continuing		
<b>Subtotal</b>			0.882	0.900		11.900		-		11.900				

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Shallow Water Combat Submersible (BLK 1)	WR	NSWC, NAVSEA:Panama City, FL.- Washington, DC	-	0.489	Jan 2011	3.802	Jan 2012	-		3.802	Continuing	Continuing		
Dry Combat Submersible	C/Various	TBD:TBD	-	-		2.500		-		2.500	4.470	6.970		
Dry Combat Submersible Light	C/Various	TBD:TBD	-	-		0.500	Mar 2012	-		0.500	1.500	2.000		
Dry Deck Shelter Mods	Allot	NAVSEA:Washington, DC	-	-		1.000	Nov 2011	-		1.000	Continuing	Continuing		
<b>Subtotal</b>			-	0.489		7.802		-		7.802				

<b>Management Services (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Shallow Water Combat Submersible	Allot	NSWC/ NAVSEA:Panama City, FL Washington, DC	0.560	0.730	Jan 2011	1.200	Jan 2012	-		1.200	Continuing	Continuing		
Dry Combat Submersible	Allot	TBD:Macdill AFB, FL	-	-		1.500	Jan 2012	-		1.500	1.819	3.319		
Dry Combat Submersible Light	Allot	TBD:Macdill AFB, FL	-	-		2.500	Jan 2012	-		2.500	2.500	5.000		
Dry Deck Shelter Mods	Allot	NAVSEA:Washington, DC	-	-		1.500	Mar 2012	-		1.500	Continuing	Continuing		
<b>Subtotal</b>			0.560	0.730		6.700		-		6.700				

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2012 United States Special Operations Command							<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>			<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>			
	<b>Total Prior Years Cost</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>	22.580	13.986	92.424	-	92.424				

Remarks



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
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

<b>Other Congressional Adds</b>	
Congressional Add: Undersea Special Warfare Eng Spt Office	████████████████████
Congressional Add: Non-Gasoline Burning Engine	████████████████████

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Shallow Water Combat Submersible</i></b>				
Technology Development	1	2010	2	2010
Milestone B	4	2010	4	2010
Engineering & Manufacturing Development (Block I)	1	2011	4	2013
Developmental Test (Block I)	2	2012	4	2013
Tech Eval (Block I)	2	2013	4	2013
Operational Test (Block I)	3	2014	1	2015
Congressional Add: Technology for Shallow Water Mobility	1	2010	2	2012
Congressional Add: Transformer Technology for Combat Submersibles	3	2010	3	2010
<b><i>Dry Combat Submersibles</i></b>				
Analysis, Component Development and Prototypes	4	2010	4	2014
Congressional Add: Alternative SOF Submersible Concept Design Study	4	2010	4	2011
<b><i>Dry Combat Submersible Light</i></b>				
Milestone B	1	2012	1	2012
Engineering, Manufacturing & Development	1	2012	4	2014
Developmental/Operational Test	2	2014	4	2014
<b><i>Dry Deck Shelter</i></b>				
Modifications	1	2011	4	2014
Next Generation Shelter Studies & Analysis	1	2012	4	2013
Congressional Add: Future Dry Deck Shelter	4	2010	4	2011
<b><i>Other Congressional Adds</i></b>				
Congressional Add: Undersea Special Warfare Eng Spt Office	4	2010	4	2011



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160483BB: <i>SOF Underwater Systems</i>	<b>PROJECT</b> S0417: <i>SOF Underwater Systems</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Congressional Add: Non-Gasoline Burning Engine	4	2010	4	2011

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	12.098	2.933	14.475	-	14.475	2.165	1.197	0.189	0.193	Continuing	Continuing
S1684: <i>SOF Surface Craft Advanced Systems</i>	12.098	2.933	14.475	-	14.475	2.165	1.197	0.189	0.193	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for engineering & manufacturing development and operational systems development of small, medium, and heavy surface craft and selected items of specialized equipment to meet the unique requirements of Special Operations Forces (SOF). This program element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development & prototypes) to quickly respond to possible new requirements for surface craft and equipment, such as the notional light and heavy combatant crafts that are currently being studied in the Joint Capabilities Integration and Development System process. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct operations associated with SOF maritime missions.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	9.959	2.933	1.949	-	1.949
Current President's Budget	12.098	2.933	14.475	-	14.475
Total Adjustments	2.139	-	12.526	-	12.526
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	2.455	-			
• SBIR/STTR Transfer	-0.316	-			
• Other Adjustment	-	-	12.526	-	12.526

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S1684: *SOF Surface Craft Advanced Systems*

Congressional Add: *SOC-R Armor Development for Small Arms Armor Piercing Ammo*

Congressional Add Subtotals for Project: S1684

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	2.470	-
	2.470	-
	2.470	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>
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**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$2.139 million is due to an increase for a congressional add for Small Arms Armor Piercing Ammo (\$2.470 million), a transfer of funds to Small Business Innovative Research (-\$.316 million), and a reprogramming to higher command priorities (-\$.015).

FY 2011 None.

FY 2012 Increase of \$12.526 million for engineering, manufacturing, development and test of Combatant Craft Medium (CCM) and planning for Combatant Craft Heavy.

Schedule: Contract award for CCM was cancelled to allow for a reassessment of the CCM program requirements to ensure they aligned with planned operational employment and Concept of Operations for maritime mobility.

Technical: The CCM requirements and associated key performance parameters were re-evaluated and changed in April 2010.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>	<b>PROJECT</b> S1684: <i>SOF Surface Craft Advanced Systems</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
S1684: <i>SOF Surface Craft Advanced Systems</i>	12.098	2.933	14.475	-	14.475	2.165	1.197	0.189	0.193	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for engineering & manufacturing development and operational systems development of small, medium, and heavy surface craft and selected items of specialized equipment to meet the unique requirements of Special Operations Forces (SOF). This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development & prototypes) to quickly respond to possible new requirements for surface craft and equipment, such as the notional light and heavy combatant crafts that are currently being studied in the Joint Capabilities Integration Development System process. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. Sub-projects include:

- The Combatant Craft Medium (CCM) sub-project provides a family of next generation craft to replace the current rigid inflatable boat and the MKV. This sub-project is a continuation of the Rigid Inflatable Boat (RIB) replacement craft originally started in FY 2008 under the RIB sub-project. One version of these craft will be a reconfigurable, multi-mission surface tactical mobility craft with a primary mission of insertion and extraction of SOF in a medium threat environment. It will incorporate additional performance capabilities such as shock mitigation, low observability, improved maneuverability and SOF warfighting capabilities required to operate in future threat environments. Other versions of craft will be developed to support foreign security assistance missions and operations in low or permissive threat environments.
- The Combatant Craft Heavy (CCH) sub-project represents a family of solutions that will provide engineering support for design and specification of a development combatant craft for movement and maneuver of SOF personnel. Requirements may include maneuverability, reduced detectability with enhanced shock mitigation, and human systems integration.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2010	FY 2011	FY 2012
<b>Title:</b> Combatant Craft Medium	9.628	2.933	13.620
<b>FY 2010 Accomplishments:</b> Conducted risk reduction activities.			
<b>FY 2011 Plans:</b> Completes source selection and develops components and advanced prototypes.			
<b>FY 2012 Plans:</b> Build and test components and advanced prototypes.			
<b>Title:</b> Combatant Craft Heavy	-	-	0.855

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>	<b>PROJECT</b> S1684: <i>SOF Surface Craft Advanced Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>FY 2012 Plans:</b> Conduct risk reduction activities and develop documentation for a replacement combatant craft.			
<b>Accomplishments/Planned Programs Subtotals</b>	9.628	2.933	14.475

	<b>FY 2010</b>	<b>FY 2011</b>
<b>Congressional Add:</b> SOC-R Armor Development for Small Arms Armor Piercing Ammo	2.470	-
<b>FY 2010 Accomplishments:</b> Developed and constructed four ricochet test panels with different solutions to stop the Armor Piercing Incendiary (API) threat. Completed live fire testing and provided designs and weight estimates for new armor system for the SOC-R.		
<b>Congressional Adds Subtotals</b>	2.470	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>SOF COMBATANT CRAFT SYSTEMS</i>	11.122	11.706	6.899	0.000	6.899	46.220	65.141	7.267	7.390	Continuing	Continuing

**D. Acquisition Strategy**

- Combatant Craft Medium acquisition strategy is a competition using a two-phase source selection process. Phase I involves a Small Business Set-Aside competition for two or more companies to design and build test articles. Phase II selects a single company to produce a fully integrated baseline craft for test and evaluation with options for production and interm contractor support. Acquisition strategies for other craft may be based on the rapid acquisition of available non-developmental commercial-off-the-shelf/government-off-the-shelf craft.
- Combatant Craft Heavy acquisition strategy is to complete the initial planning and studies for the craft, which will be performed in-house with some support from other government agencies or existing contract services.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 United States Special Operations Command** **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>	<b>PROJECT</b> S1684: <i>SOF Surface Craft Advanced Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Combatant Craft Medium	C/Various	TBD:TBD	7.967	0.977	Aug 2011	12.061	Nov 2011	-		12.061	0.195	21.200	
Forward Looking Infrared	C/CPFF	FSI:Boston, MA	1.196	-		-		-		-	0.000	1.196	
Cong Add: Integrated Combat System	C/CPFF	Trident:Fairfax, VA	1.548	-		-		-		-	0.000	1.548	
Cong Add: SOCR Armor Development	C/CPFF	USMI:Gulfport, MS	2.470	-		-		-		-	0.000	2.470	
<b>Subtotal</b>			13.181	0.977		12.061		-		12.061	0.195	26.414	

<b>Support (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Forward Looking Infrared	C/CPFF	FSI:Boston, MA	0.369	-		-		-		-	0.000	0.369	
<b>Subtotal</b>			0.369	-		-		-		-	0.000	0.369	

<b>Test and Evaluation (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Combatant Craft Medium	MIPR	NSWC:Norfolk, VA	-	0.245	Aug 2011	0.244	Aug 2012	-		0.244	0.097	0.586	
Combatant Craft Heavy	WR	TBD:TBD	-	-		0.180	Jun 2012	-		0.180	0.000	0.180	
<b>Subtotal</b>			-	0.245		0.424		-		0.424	0.097	0.766	

<b>Management Services (\$ in Millions)</b>				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Combatant Craft Medium	C/Various	NSWC,;Norfolk, VA; Crane, IN	1.676	1.711	Jul 2011	1.315	Nov 2011	-		1.315	0.680	5.382	
Forward Looking Infrared	C/CPFF	FSI:Boston, MA	0.659	-		-		-		-	0.000	0.659	

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>	<b>PROJECT</b> S1684: <i>SOF Surface Craft Advanced Systems</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>Combatant Craft Medium</b>																												
Proposals & Source Selection					██████████																							
Build Competitive Prototypes									██████████																			
Developmental Test/Operational Test													██████████															
Final Downselect													██████															
Low Rate Initial Production																	██████████											
Operational Evaluation																					██████							
Initial Operational Capability																									██████			
<b>Combatant Craft Heavy</b>																												
Risk Reduction Activities									██████████																			
<b>Armor Development</b>																												
SOC-R Armor Development for Small Arms Armor Piercing Ammo					██████████																							

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160484BB: <i>SOF Surface Craft</i>	<b>PROJECT</b> S1684: <i>SOF Surface Craft Advanced Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Combatant Craft Medium</b>				
Proposals & Source Selection	1	2011	4	2011
Build Competitive Prototypes	1	2012	4	2012
Developmental Test/Operational Test	1	2013	4	2013
Final Downselect	4	2013	4	2013
Low Rate Initial Production	1	2014	3	2014
Operational Evaluation	4	2014	1	2015
Initial Operational Capability	1	2015	1	2015
<b>Combatant Craft Heavy</b>				
Risk Reduction Activities	2	2012	4	2012
<b>Armor Development</b>				
SOC-R Armor Development for Small Arms Armor Piercing Ammo	4	2010	4	2011

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	10.746	4.193	2.990	-	2.990	-	-	-	-	Continuing	Continuing
D476: <i>Military Information Support Operations</i>	10.746	4.193	2.990	-	2.990	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Beginning in FY2012, Program Element 1160488BB was renamed Military Information Support Operations (MISO). Former name was SOF PSYOPS.

The MISO program element provides for the development, test and integration of MISO equipment. MISO 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 MISO in support of combatant commanders.

<b>B. Program Change Summary (\$ in Millions)</b>	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	9.846	4.193	2.990	-	2.990
Current President's Budget	10.746	4.193	2.990	-	2.990
Total Adjustments	0.900	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	1.212	-			
• SBIR/STTR Transfer	-0.312	-			

**Change Summary Explanation**

Funding:

FY 2010 Net increase of \$0.900 million is due to the EC 130J Multi Mission Upgrades Congressional Add (+\$3.983 million) that was reprogrammed from PE 1160403BB, SO Aviation Systems Advanced Development via 1415-3 internal reprogramming action (10-21 IR), a reprogramming to higher command priorities (-\$2.771 million) and a transfer of funds to Small Business Innovative Research (-\$0.312 million).

FY 2011 None.

FY 2012 None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>	<b>R-1 ITEM NOMENCLATURE</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>	<b>PROJECT</b> D476: <i>Military Information Support Operations</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
D476: <i>Military Information Support Operations</i>	10.746	4.193	2.990	-	2.990	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

**A. Mission Description and Budget Item Justification**

This project provides for the development and acquisition of Military Information Support Operations (MISO) equipment. MISO 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 MISO in support of combatant commanders. The MISO sub-projects funded are grouped by the level of organization they support. Sub-projects include:

- 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 (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.
- The MISO Broadcast System consists of fixed and deployable multi-media production facilities for radio and television programming, distribution systems, and dissemination systems to provide MISO support to theater commanders. This program is comprised of several interfacing systems that can stand alone or interoperate with other MISO 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. MISO 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 MISO 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 MISO products in deployed locations.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>	<b>PROJECT</b> D476: <i>Military Information Support Operations</i>
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- **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>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<p><b>Title:</b> Family of Loudspeakers</p> <p><b>FY 2010 Accomplishments:</b> Conducted primary hardware and software development, systems engineering and Development Test and Evaluation (DT&amp;E) on sonic projection variant.</p>	0.802	-	-
<p><b>Title:</b> MISO Broadcast System</p> <p><b>FY 2010 Accomplishments:</b> Continued primary hardware development, systems engineering, and DT&amp;E on the long range broadcast technology, broadcast modernization efforts and media display.</p> <p><b>FY 2011 Plans:</b> Continue primary hardware development, systems engineering, and DT&amp;E on the long range broadcast technology, broadcast modernization efforts and media displays.</p> <p><b>FY 2012 Plans:</b> Continues primary hardware development, systems engineering, and DT&amp;E on the long range broadcast technology, broadcast modernization efforts and media displays.</p>	4.612	3.169	2.990
<p><b>Title:</b> EC-130J Commando Solo</p> <p><b>FY 2010 Accomplishments:</b> Initiated engineering study of government and commercial digital broadcast technologies applicable to MISO.</p> <p><b>FY 2011 Plans:</b> Continues engineering study of government and commercial digital broadcast technologies applicable to MISO leading to the development of a performance specification.</p>	5.332	1.024	-
<b>Accomplishments/Planned Programs Subtotals</b>	10.746	4.193	2.990

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**Exhibit R-2A, RDT&E Project Justification:** PB 2012 United States Special Operations Command **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>	<b>PROJECT</b> D476: <i>Military Information Support Operations</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>Military Information Support Operations Systems</i>	34.358	25.266	4.142	0.000	4.142	1.197	1.012	1.074	1.136	Continuing	Continuing

**D. Acquisition Strategy**

- The Family of Loudspeakers Next Generation Loudspeaker System consists of seven variants. The program acquires and modifies, as necessary, commercial off-the-shelf/government off-the-shelf (COTS/GOTS) systems and equipment to replace or enhance current system capabilities.
  
- MISO 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 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.
  
- 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.

**E. Performance Metrics**

N/A





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>	<b>PROJECT</b> D476: <i>Military Information Support Operations</i>

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
<b>Family of Loudspeakers</b>																												
Family of Loudspeakers next Generation Loudspeaker																												
<b>MISO Broadcast System</b>																												
Long Range Broadcast System Unmanned Aerial Vehicle-Payload Hardware Development and Testing																												
<b>Commando Solo</b>																												
Commando Solo																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 United States Special Operations Command		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 1160488BB: <i>Military Information Support Operations (MISO) (Formerly SOF PSYOPS)</i>	<b>PROJECT</b> D476: <i>Military Information Support Operations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Family of Loudspeakers</i></b>				
Family of Loudspeakers next Generation Loudspeaker	1	2010	4	2010
<b><i>MISO Broadcast System</i></b>				
Long Range Broadcast System Unmanned Aerial Vehicle-Payload Hardware Development and Testing	1	2010	4	2012
<b><i>Commando Solo</i></b>				
Commando Solo	2	2010	4	2011