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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 United States Special Operations Command **Date:** March 2014

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>					R-1 Program Element (Number/Name) PE 1160402BB / <i>SOF Advanced Technology Development</i>							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	1,005.792	39.469	45.306	57.622	-	57.622	56.177	56.311	65.623	66.662	Continuing	Continuing
S200: <i>Advanced Technology Development</i>	1,005.792	39.469	39.576	39.515	-	39.515	43.482	43.328	46.654	47.340	Continuing	Continuing
SF101: <i>Engineering Analysis</i>	0.000	-	0.847	12.978	-	12.978	7.511	7.688	13.563	13.819	Continuing	Continuing
S225: <i>Information and Broadcast Systems Adv Tech</i>	0.000	-	4.883	5.129	-	5.129	5.184	5.295	5.406	5.503	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Beginning in FY 2014 Special Operations Forces (SOF) Advanced Technology Development represents the approved consolidation of SOF Advanced Technology Development, Program Element (PE) 1160402BB; SOF Aviation Engineering Analysis, PE 1160422BB; and SOF Information and Broadcast Systems Advanced Technology, PE 1160472BB.

A. Mission Description and Budget Item Justification

Advanced Technology Development 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 SOF users. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. Advanced Technology Development 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.

Engineering Analysis provides rapid response capability for the investigation, evaluation, and demonstration of technologies for SOF platform and soldier system unique 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; weapon performance integration; and future SOF platform and soldier system requirements.

Information and Broadcast Systems Advanced Technology 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 project also 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 project 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.

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B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	45.317	46.809	47.630	-	47.630
Current President's Budget	39.469	45.306	57.622	-	57.622
Total Adjustments	-5.848	-1.503	9.992	-	9.992
• Congressional General Reductions	-3.853	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-0.060	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.562	-			
• SBIR/STTR Transfer	-1.373	-1.503			
• Other Adjustments	-	-	9.992	-	9.992

Change Summary Explanation

Funding:

FY 2013: Decrease of \$5.286 million is due to Sequestration reductions (-\$3.853 million), congressional rescissions (-\$0.060 million), a reprogramming for higher command priorities (-\$0.562 million) and transfer of funds to Small Business Innovative Research (-\$1.373 million).

Sequestration Impacts: Re-prioritized and adjusted funding to various projects

FY 2014: Decrease of \$1.503 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer Program.

FY 2015: Increase of \$9.992 million is due to a realignment to Advanced Technology Development for increased efforts to incorporate core technology and demonstrate relevant capability in support of the SOF warfighter.

Schedule: None.

Technical: None.

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Exhibit R-2A, RDT&E Project Justification: PB 2015 United States Special Operations Command										Date: March 2014		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development				Project (Number/Name) S200 / Advanced Technology Development			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S200: Advanced Technology Development	1,005.792	39.469	39.576	39.515	-	39.515	43.482	43.328	46.654	47.340	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

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 within the SOF Special Technology Development efforts 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. Technical activities in these areas will provide new operational capabilities and will mature technologies to better shape future SOF procurements.
- Special Technology Experimentation Sub-Project. This sub-project conducts a variety of tactical network test bed venues in collaboration with Department Of Defense (DoD) activities.
- Special Operations Special Technology Sub-Project. This sub-project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events.
- Tagging, Tracking, and Locating (TTL) Technologies Sub-Project. TTL funds SOF unique ATDs identified in the USSOCOM Capabilities Based Assessments. TTL rapidly prototypes and expeditiously transitions projects from laboratory to acquisition Programs of Record/operational use to address SOF capability deficiencies.
- National to Theater Transition Sub-Project. Conduct additional testing required to transition items from national forces to theater forces.
- Classified Sub-Project (provided under separate cover).
- The Special Communications Field Segment-Enterprise program includes organizations, practices, processes, services, networks, systems and subsystems that manage and provide clandestine exchange of information between elements (field-to-field, field-to-base, base-to-field).

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Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development	Project (Number/Name) S200 / Advanced Technology Development		
• Signature Management Technology Demonstrator (details provided under separate cover).				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Title: Rapid Exploitation of Innovative Technology (REITS) for SOF Sub-Project FY 2013 Accomplishments: Continued to identify and develop technologies which can rapidly transition to support the warfighter with transition paths into programs of record or direct fielding. Capabilities such as, but not limited to: SOF mobility platform improvements, mobile communications applications, improved target engagement, improved materials, improved biometrics and forensics tools, non-traditional power and energy solutions, and improved electronic warfare solutions will be evaluated for development, prototyping, and limited field assessment.		5.438	-	-
Title: Special Technology Experimentation Sub-Project FY 2013 Accomplishments: Conducted field experimentations at various venues to facilitate technology insertion.		1.242	-	-
Title: SOF Special Technology Sub-Project FY 2013 Accomplishments: Continued to develop and insert technology into existing programs. Technologies include, but are not limited to, reduced signature profiles; improved weapons; lightweight armor and materials; alternative power systems; eco-friendly sustainable energy devices; long duration, reduced size, high output power supplies; and technologies that reduced the load of the operator. Initiated development of technologies supporting undersea mobility; developed ground mobility solutions for improved endurance and survivability. Evaluated and developed sensors across the electromagnetic spectrum to meet operational requirements. Based upon agreed technology maturity metrics, transferred successful projects into programs of record. FY 2014 Plans: Continue to develop and insert technology into existing programs. Technologies include, but are not limited to, reduced signature profiles; improved weapons; lightweight armor and materials; alternative power systems; eco-friendly sustainable energy devices; long duration, reduced size, high output power supplies; and technologies that reduce the load of the operator. Initiate development of technologies supporting undersea mobility; develop ground mobility solutions for improved endurance and survivability. Evaluate and develop sensors across the electromagnetic spectrum to meet operational requirements. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. FY 2015 Plans: Continues to develop and insert technology into existing programs. Technologies include, but are not limited to reduced signature profiles; improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials; alternative power systems; eco-friendly sustainable energy devices; long duration, reduced		9.531	12.371	20.018

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
size, high output power supplies; and technologies that reduce the load of the operator. Continues development of technologies supporting undersea and ground mobility. Evaluates and develops sensors across the electromagnetic spectrum to meet operational requirements. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continues the integration of critical technologies focused on providing the dismounted special operator leap ahead capabilities via innovative collaborative processes. Begin initial effort for field prototype system incorporating technologies likely to transition to fielded systems.				
Title: Tagging, Tracking, and Locating Technologies (TTL) Sub-Project FY 2013 Accomplishments: Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploited and integrated recently-proven and emerging technologies for TTL and TTL-enabling systems. Continued projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL Quick-Look Capabilities-Based Assessment (QL-CBA). FY 2014 Plans: Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploit and integrate recently-proven and emerging technologies for TTL and TTL-enabling systems. Continue projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. FY 2015 Plans: Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploits and integrates recently-proven and emerging technologies for TTL and TTL-enabling systems. Continues projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA.		15.929	12.721	13.852
Title: National to Theater Transition FY 2013 Accomplishments: Conducted additional testing and evaluation required on various equipment items being transitioned to the SOF Theater Forces. FY 2014 Plans: Conduct additional testing and evaluation required on various equipment items being transitioned to the SOF Theater Forces. Starting in FY15 this program has moved to the engineering analysis RDT&E project.		0.970	1.988	-
Title: Classified Sub-Project FY 2013 Accomplishments: Details provided under separate cover. FY 2014 Plans:		1.828	2.043	5.645

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014
Details provided under separate cover.			
FY 2015 Plans: Details provided under separate cover.			
Title: Special Communications Field Segment - Enterprise (SPCOM)		4.531	-
FY 2013 Accomplishments: Starting in FY 2014 SPCOM will be executed in Program Element 1160431BB. Began development of transport and field segment devices for a special communications enterprise, as well as the development of means and methods (tradecraft) to provide near-term impact to operators.			
Title: Signature Management Technology Demonstrator		-	10.453
FY 2014 Plans: Details provided under separate cover.			
Accomplishments/Planned Programs Subtotals		39.469	39.576
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			
E. Performance Metrics			
N/A			

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Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 1160402BB / SOF Advanced Technology Development				Project (Number/Name) SF101 / Engineering Analysis			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
SF101: Engineering Analysis	-	-	0.847	12.978	-	12.978	7.511	7.688	13.563	13.819	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project provides a rapid response capability to support SOF platforms, Unmanned Aerial Vehicle (UAV) payload sensors and soldier 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 SOF platforms, UAV payload sensors and soldier 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. This project also conducts risk reduction studies, analyses, and demonstrations to support emerging, time critical weapons and sensor enhancements.

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

	FY 2013	FY 2014	FY 2015
Title: Engineering Analysis	-	0.847	12.978
FY 2014 Plans: Continue to perform engineering studies, demonstrations, and analyses for SOF platforms, UAV payload sensors and soldier system unique equipment and missions.			
FY 2015 Plans: Continues to perform engineering studies, demonstrations, and analyses for SOF platforms, UAV payload sensors and soldier system unique equipment and missions.			
Accomplishments/Planned Programs Subtotals	-	0.847	12.978

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S225: Information and Broadcast Systems Adv Tech	-	-	4.883	5.129	-	5.129	5.184	5.295	5.406	5.503	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project conducts rapid prototyping of information and broadcast system technology. 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 tool sets 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 increases the efficiency and shortens 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 Advance Technology Demonstrations and Joint Capability Technology Demonstrations 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 and frequency modulation radio transmitters and antenna; television transmitter and antenna systems; internet and telephony dissemination and broadcast systems; technologies Capable of long-loiter MISO broadcast and delivery in denied and permissive environment; and technologies that automate and improve MISO planning and analytical capability through integrated capabilities.

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

	FY 2013	FY 2014	FY 2015
Title: MISO Modernization	-	4.883	5.129
FY 2014 Plans: Continue to develop and insert technology into existing programs.			
FY 2015 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014
Continues to develop and insert technology into existing programs.			
Accomplishments/Planned Programs Subtotals		-	4.883
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics N/A			