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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / <i>SO/LIC Advanced Development</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	85.046	8.587	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
206: <i>Explosive Ordnance Disposal/Low-Intensity Conflict</i>	14.975	1.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
207: <i>Special Reconnaissance Capabilities</i>	38.329	3.948	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
208: <i>Information Dissemination Concepts</i>	6.326	0.637	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
209: <i>Irregular Warfare Support (IWS)</i>	25.416	2.502	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC Program develops and delivers advanced capabilities for military Explosive Ordnance Disposal (EOD) operators and Special Operations Forces (SOF) to meet the challenges of improvised explosive devices (IEDs), force protection, and the war on terrorism. EOD/LIC efforts focus in two areas: support to SOF to combat terrorism; and access, detection, identification, and neutralization of all types of conventional explosive ordnance and improvised explosive devices. Requirements submitted by the Joint Service EOD and Service Special Operations communities are prioritized and approved by OASD (SO/LIC). With a decreased budget, CTTSO will proceed with The Improvised Device Defeat (IDD) subgroup expanding its inclusion of joint service EOD operators in its efforts since the Department's announcement to cancel PE 0603121D8Z. IDD will absorb the appropriate joint service EOD requirements for prioritization and interagency coordination going forward. IDD will use the limited resources it possesses to provide the broadest possible capability improvement to the community.

P207, Special Reconnaissance Capabilities (SRC). The SRC Program exploits, leverages, and integrates DoD's service and agency efforts to improve surveillance and reconnaissance tools (unattended sensors, tagging and tracking devices, data infiltration/exfiltration, remote delivery, and mobility/delivery of sensors), while providing risk reduction for DoD and other agency technology and development programs. The SRC Program identifies, integrates, and operationalizes the technical tools for the collection of actionable information against a variety of targets and mission requirements, including emerging requirements, and maintains DoD's on-line catalog of tools in order to minimize crisis response time for special reconnaissance and surveillance.

P208, Information Dissemination Concepts (IDC). The IDC Program addresses technology capabilities necessary to enable sustained information dissemination campaigns in denied areas. The IDC program, working as necessary with DoD and the interagency, develops, modifies, and demonstrates concepts, mechanisms, platforms and payloads to propagate themes and messages that convince target audiences to take action favorable to the United States and its allies. The Surveillance, Collection, and Operations Support (SCOS) subgroup has managed the IDC project for CTTSO since gaining oversight of the funding. The language program orchestrated by SCOS will remain, albeit with a drastic reduction in funding without PE 0603121D8Z.

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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z I <i>SO/LIC Advanced Development</i>
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P209, Irregular Warfare Support (IWS). The IWS Program (IWSP) develops adaptive and agile capabilities and methodologies to support irregular warfare in the current and evolving strategic environments. IWSP supports joint, interagency, and other partners who conduct or counter irregular warfare through indirect and asymmetric approaches, though they may employ a full range of military and other capabilities, in order to erode an adversary’s power, influence, and will. Solutions include material and non-material operational analysis, concept development, field experimentation, and delivery of capabilities, to defeat the motivations, sanctuaries, and enterprises of targeted state and non-state actors. As evidenced by every applicable Defense and National Security strategy document, (e.g., 2012 Defense Strategic Guidance (DSG), “Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, Irregular Warfare capabilities are vital to U.S. security. CTTSO, in coordination with the ASD (SO/LIC), is in the process of reviewing options to continue the IWS capability that is critical to the combating terrorism community.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	8.587	0.000	0.000	-	0.000
Current President's Budget	8.587	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / SO/LIC Advanced Development				<b>Project (Number/Name)</b> 206 / Explosive Ordnance Disposal/Low-Intensity Conflict			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
206: Explosive Ordnance Disposal/Low-Intensity Conflict	14.975	1.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC Program develops and delivers advanced capabilities for military Explosive Ordnance Disposal (EOD) operators and Special Operations Forces (SOF) to meet the challenges of improvised explosive devices (IEDs), force protection, and the war on terrorism. EOD/LIC efforts focus in two areas: support to SOF to combat terrorism; and access, detection, identification, and neutralization of all types of conventional explosive ordnance and improvised explosive devices. Requirements submitted by the Joint Service EOD and Service Special Operations communities are prioritized and approved by OASD (SO/LIC). With a decreased budget, CTTSO will proceed with The Improvised Device Defeat (IDD) subgroup expanding its inclusion of joint service EOD operators in its efforts since the Department's announcement to cancel PE 0603121D8Z. IDD will absorb the appropriate joint service EOD requirements for prioritization and interagency coordination going forward. IDD will use the limited resources it possesses to provide the broadest possible capability improvement to the community.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<b>Title:</b> Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC)	1.500	0.000	-
<b>Description:</b> P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC program develops and delivers advanced capabilities for military EOD operators and Special Operations Forces (SOF) to meet the challenges of improvised explosive devices (IEDs), force protection, and the war on terrorism. EOD/LIC efforts focus in two areas: support to SOF to combat terrorism; and access, detection, identification, and neutralization of all types of conventional explosive ordnance and improvised explosive devices. Requirements submitted by the Joint Service EOD and Service Special Operations communities are prioritized and approved by Office of the Assistant Secretary of Defense (OASD) (SO/LIC).			
<b>FY 2015 Accomplishments:</b> Efforts focused on tools and equipment to enhance situational awareness and operational capability during incident response, render safe or direct action operations. Continue development of a compact, high-power next generation x-ray generator for EOD use. Complete development of techniques and concept render safe tool(s) capable of achieving high order or low order disposal of insensitive high explosive (IHE) munitions. Complete development of a suite of tools for Render Safe Procedures against underwater explosive devices. Demonstrate and evaluate a multi-purpose advanced tactical timer. Develop a hydraulically-actuated, platform-independent arm system for Robotic Platforms.			
<b>FY 2016 Plans:</b> Remaining EOD/LIC projects are transitioned to Improvised Device Defeat/Explosives Countermeasures (IDD/EC).			
<b>Accomplishments/Planned Programs Subtotals</b>	1.500	0.000	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / <i>SO/LIC Advanced Development</i>	<b>Project (Number/Name)</b> 206 / <i>Explosive Ordnance Disposal/Low-Intensity Conflict</i>

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / SO/LIC Advanced Development	<b>Project (Number/Name)</b> 207 / Special Reconnaissance Capabilities
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
207: <i>Special Reconnaissance Capabilities</i>	38.329	3.948	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

P207, Special Reconnaissance Capabilities (SRC). The SRC Program exploits, leverages, and integrates DoD's service and agency efforts to improve surveillance and reconnaissance tools (unattended sensors, tagging and tracking devices, data infiltration/exfiltration, remote delivery, and mobility/delivery of sensors), while providing risk reduction for DoD and other agency technology and development programs. The SRC Program identifies, integrates, and operationalizes the technical tools for the collection of actionable information against a variety of targets and mission requirements, including emerging requirements, and maintains DoD's on-line catalog of tools in order to minimize crisis response time for special reconnaissance and surveillance.

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

	FY 2015	FY 2016	FY 2017
<b>Title:</b> SPECIAL RECONNAISSANCE CAPABILITIES (SRC).	3.948	-	-
<b>Description:</b> P207, Special Reconnaissance Capabilities (SRC). The primary objective of the SRC program is to seek out and identify technical tools for the collection of actionable data and information which will assist DoD in its execution of Overseas Contingency Operations (OCO) tasks. To accomplish this objective, the program leverages emerging and existing developmental technologies from government and commercial ventures and operationalizes them to meet near term reconnaissance and surveillance operational requirements. The operational tools transition unattended sensors, tagging devices, data transfer, remote delivery, and mobility/delivery of sensors into established Programs of Record throughout the DoD. The program evaluates new and existing technical surveillance technologies and incorporates results into a reference database for future access.			
<b>FY 2015 Accomplishments:</b> Continued to identify, develop, integrate, and field promising persistent intelligence, surveillance, and reconnaissance (ISR) advanced technologies and capabilities. High payoff technologies that will be researched and transitioned include: optical data transmission technologies; ultra high speed data processing and transmission; device miniaturization; low profile enhanced micro-optics; next-generation precision Hostile Forces Tagging, Tracking, and Locating capabilities; clandestine communications architectures; advanced biometric data collection; and low power, high bandwidth data transmission subsystems.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.948	-	-

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

N/A

**Remarks**

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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / <i>SO/LIC Advanced Development</i>	<b>Project (Number/Name)</b> 207 / <i>Special Reconnaissance Capabilities</i>

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / SO/LIC Advanced Development	<b>Project (Number/Name)</b> 208 / Information Dissemination Concepts
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
208: Information Dissemination Concepts	6.326	0.637	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

P208, Information Dissemination Concepts (IDC). The IDC Program addresses technology capabilities necessary to enable sustained information dissemination campaigns in denied areas. The IDC program, working as necessary with DoD and the interagency, develops, modifies, and demonstrates concepts, mechanisms, platforms and payloads to propagate themes and messages that convince target audiences to take action favorable to the United States and its allies. The Surveillance, Collection, and Operations Support (SCOS) subgroup has managed the IDC project for CTTSO since gaining oversight of the funding. The language program orchestrated by SCOS will remain, albeit with a drastic reduction in funding without PE 0603121D8Z.

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

	FY 2015	FY 2016	FY 2017
<b>Title:</b> INFORMATION DISSEMINATION CONCEPTS	0.637	-	-
<b>Description:</b> Respond to emerging needs for advanced language solutions in the operational environment including data exploitation and analysis of information in languages other than English and technology to enhance language proficiency and cultural skills.			
<b>FY 2015 Accomplishments:</b> Developed tools that assist the military in foreign language training courses. Improve foreign language applications, practices, and tools that are deployed in theater. Expedite methods of collecting and analyzing media sources and evidence more efficiently and timely. Enhance triage capabilities to store, organize, and query multimedia acquired from various sources. Deploy automated technologies capable of ingesting and translating video and audio sources for analysts to effectively report intelligence findings.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.637	-	-

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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**E. Performance Metrics**

N/A

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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603121D8Z / SO/LIC Advanced Development	<b>Project (Number/Name)</b> 209 / Irregular Warfare Support (IWS)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
209: Irregular Warfare Support (IWS)	25.416	2.502	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

P209, Irregular Warfare Support (IWS). The IWS Program (IWSP) develops adaptive and agile capabilities and methodologies to support irregular warfare in the current and evolving strategic environments. IWSP supports joint, interagency, and other partners who conduct or counter irregular warfare through indirect and asymmetric approaches, though they may employ a full range of military and other capabilities, in order to erode an adversary’s power, influence, and will. Solutions include material and non-material operational analysis, concept development, field experimentation, and delivery of capabilities, to defeat the motivations, sanctuaries, and enterprises of targeted state and non-state actors. As evidenced by every applicable Defense and National Security strategy document, (e.g., 2012 Defense Strategic Guidance (DSG), “Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, Irregular Warfare capabilities are vital to U.S. security. CTTSO, in coordination with the ASD (SO/LIC), is in the process of reviewing options to continue the IWS capability that is critical to the combating terrorism community.

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

	FY 2015	FY 2016	FY 2017
<p><b>Title:</b> IRREGULAR WARFARE SUPPORT (IWS)</p> <p><b>Description:</b> P209, Irregular Warfare Support (IWS). The IWS Program (IWSP) develops adaptive and agile capabilities and methodologies to support irregular warfare in the current and evolving strategic environments. IWSP supports joint, interagency, and other partners who conduct or counter irregular warfare through indirect and asymmetric approaches, though they may employ a full range of military and other capabilities, in order to erode an adversary’s power, influence, and will. Solutions include material and non-material operational analysis, concept development, field experimentation, and delivery of capabilities, to defeat the motivations, sanctuaries, and enterprises of targeted state and non-state actors.</p> <p><b>FY 2015 Accomplishments:</b> Continued research and development of material and non-material solutions, promising capabilities, and continuation of project development, delivery, and transition to support the Department of Defense and Interagency Irregular Warfare mission. Complete the deployment of an enhanced training capability and transition to a program of record a counter- “green on blue” capability for ISAF and U.S. forces. This effort assists warfighters in detecting and mitigating insider threat attacks in partner, COIN and contingency operations, which is a serious issue that undercuts efforts at training host nation security forces, one of the pillars of Irregular Warfare. Continue to support Project LEGACY, a capability that significantly improves host-nation police counterinsurgency and military intelligence capabilities. Mentoring via the Legacy program will continue through FY14, though substantial drawdowns will begin starting in October 2013 with additional reductions occurring throughout 2014. Complete the effort that elicited and refined requirements from users within a rapid assessment framework in order to successfully pair SOF and Interagency users with off the shelf, high performance technologies and novel capabilities that fulfill specific requirements to share and analyze operational data better and faster. Continue to research and develop threat group and</p>	2.502	-	-

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

	FY 2015	FY 2016	FY 2017
<p>geographic assessments based on open source information that allows operators and decision makers to understand the threats associated within their various areas of operation globally and how these threat groups affect the global security of the US and its allies. Continued to develop and expand an effort that integrates and fuses heterogeneous social media data for use in strategic and tactical operational planning and preparation of the battlefield with new end users and different support environments. This effort will continue to provide a real time data and analysis capability along with mentorship and the analytical tradecraft to understand and monitor critical events and sentiments in open source social media. Continue to develop and refine frameworks and training to better understand and implement Combatant Command (COCOM) -level Communication Activities to include training designed to equip decision makers and operators with the knowledge and skills necessary to properly utilize population data and avoid common traps and risks in order to assess and appropriately interpret the population research required in support of these Communications Activities. Developed enhanced MISO/PSYOP capabilities in planning, targeting and execution for support to special and unconventional warfare mission requirements.</p> <p>Deliver enhanced mobile capability for assessing and surveying assault and landing zones to support small units conducting distributed operations in remote and austere environments (to include resupply/drop zones, refueling, and helicopter landing zones). Deliver research, operational analysis, and field experimentation of multiple efforts intended to counter emerging and extant threats in the intersection of the digital-physical domains (e.g. understanding the usage of social media by transnational criminal organizations in order to predict changes in support and influence; measuring the of effectiveness of social media and understanding how to use this media for intended effects).</p> <p>Continue to develop and deliver Secure Unclassified Network (SUNet) which provides a unique virtualization of a single hardware suite of servers and software that will provide protected dynamic enclaves of capability for multi-agency users (Law Enforcement, Interagency, Coalition, and Foreign Nationals). This effort enables an inter-organizational collaborative area and enhanced capabilities of data upload, searching and sharing from headquarters down to smartphones, tablets or laptops.</p> <p>Research, develop, test and evaluate material and non-material solutions that build and/or enhance Military Information Support Operations (MISO) forces' capabilities that are essential to unconventional warfare missions. Research, develop, test, evaluate and field capabilities that enhance Special Warfare operations and building the capacity of our partner nation forces.</p> <p>Spiral development of a non-material effort intended to better understand indirect and irregular threats currently facing the US, and how to implement effective measures against them. This effort will support of the Army Special Operations Command and will include wargaming and experimentation, strategy assessment and recommendations for future operations planning. Initiate research and development effort to understand "Lawfare" or the strategy of "using – or misusing – law as a substitute for traditional military means to achieve an operational objective." This effort will review current literature and case studies of lawfare, conduct gap analysis and develop recommendations for use in the Lawfare realm by the US and its allies.</p>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
Complete and deliver assessment of the degree and quality of organizational learning, adaptation, and innovation in the field over the course of the deployment of specific units engaged in IW; provide a framework to speed up and enhance organizational learning in the field; and operationalize framework through instruction/education aids.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.502	-	-

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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