

# UNCLASSIFIED

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Navy **Date:** February 2015

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 6: RDT&amp;E Management Support</i>					<b>R-1 Program Element (Number/Name)</b> PE 0605867N / <i>Space &amp; Elec War Surv/Recon</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	0.000	7.134	8.325	6.519	-	6.519	8.761	8.639	8.211	8.384	Continuing	Continuing
1034: <i>TAC SAT Recon Office</i>	0.000	7.134	8.325	6.519	-	6.519	8.761	8.639	8.211	8.384	Continuing	Continuing

## A. Mission Description and Budget Item Justification

(U) Link Crimson (Navy Tactical Exploitation of National Capabilities (TENCAP)) is a congressionally directed program to conduct space-related R&D in order to field integrated national-to-tactical system capabilities in response to emergent fleet requirements tied to OPLANs with emphasis on PACOM and CENTCOM. TENCAP's mission is to enable delivery of timely and relevant National Systems data to naval and maritime tactical users. TENCAP responds to the fleet's top, strategically important capability gaps within National systems and is the Navy's primary interface with the National Reconnaissance Office (NRO) and other national agencies for the rapid fielding (12-18 months) of capabilities. These include advanced sensors, onboard and ground processing, and integrated national-to-tactical information fusion capabilities. Link Crimson supports operational missions in Anti-Submarine Warfare (ASW), Integrated Air and Missile Defense, Mine Warfare (MIW), Precision Strike, Maritime Domain Awareness (MDA), and Intelligence, Surveillance, and Reconnaissance (ISR) management / Battlespace Awareness (BA) via multi-source fusion and advanced data analytics.

(U) This program is funded under Budget Activity 6 because it supports the operations and installations required for general research and development. Program baseline will also address research and development on Strategic Signals Collection and Exploitation; Undersea Warfare; Counter Unmanned Air Systems; Processing, Exploitation, and Dissemination; Commercial Navigation Radar Detect and Exploit; Open Ocean Surveillance; Threat Geo-location; and Foreign Command & Control Exploitation. Link Crimson fields operational prototypes in order to test new capabilities in a real world environment in direct coordination with the operational user. Link Crimson holistically develops warfighting capabilities by synchronizing insertion of technologies with existing Navy, joint, and national agency programs. Additional detailed information is available at a higher level of classification.

(U) Project 1034: Established to exploit all National and Service sensor systems to improve tactical support to Fleet operational commanders. Project also supports equipment upgrades, training and Fleet exercises which provide the venue for testing modifications to existing programs.

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Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 0605867N / Space & Elec War Surv/Recon			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	7.134	8.325	8.179	-	8.179
Current President's Budget	7.134	8.325	6.519	-	6.519
Total Adjustments	-	-	-1.660	-	-1.660
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	-	-	-1.660	-	-1.660
Change Summary Explanation					
The FY 2016 funding request was reduced by \$1.6 million to account for the availability of prior year execution balances.					

# UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy									Date: February 2015			
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605867N / Space & Elec War Surv/ Recon				Project (Number/Name) 1034 / TAC SAT Recon Office			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1034: TAC SAT Recon Office	-	7.134	8.325	6.519	-	6.519	8.761	8.639	8.211	8.384	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>(U) Link Crimson (Navy Tactical Exploitation of National Capabilities (TENCAP)) is congressionally directed program to conduct space-related R&amp;D in order to field integrated national-to-tactical system capabilities in response to emergent fleet requirements tied to OPLANs with emphasis on PACOM and CENTCOM. TENCAP's mission is to enable delivery of timely and relevant National Systems data to naval and maritime tactical users. TENCAP responds to the fleet's top, strategically important capability gaps within National systems and is the Navy's primary interface with the National Reconnaissance Office (NRO) and other national agencies for the rapid fielding (12-18 months) of capabilities. These include advanced sensor improvements to onboard and ground processing, and integrated national-to-tactical collection and fusion capabilities. Link Crimson supports operational missions for Anti-Submarine Warfare (ASW), Integrated Air and Missile Defense, Mine Warfare (MIW), Precision Strike, Maritime Domain Awareness (MDA), enhanced Battlespace Awareness (BA) and integrated fires via multi-source data fusion architectures and advanced analytics.</p> <p>(U) This program is funded under Budget Activity 6 because it supports the operations and installations required for general research and development. Program baseline will also address R&amp;D on foreign command and control (C2) Strategic Signals Collection and Exploitation; Undersea Warfare; Counter Unmanned Air Systems (passive and active measures); Processing, Exploitation, and Dissemination; low power Commercial Navigation Radar Detect and Exploit; Open Ocean and wide-area Surveillance; and Threat Geo-location. Link Crimson fields operational prototypes in order to test new capabilities in a real world environment in direct coordination with the operational user. Link Crimson holistically develops warfighting capabilities by synchronizing insertion of technologies with existing Navy, Joint, and national agency program, as well as related operational CONOPS and operator training. Additional detailed information is available at a higher level of classification.</p> <p>(U) Project 1034: Established to exploit all National and Service sensor systems to improve tactical support to Fleet operational commanders. Project also supports equipment upgrades, training and Fleet exercises which provide the venue for testing modifications to existing programs.</p>												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Anti-Submarine Warfare (ASW)  Articles:								0.500	0.520	0.500	-	0.500
								-	-	-	-	-
Description: Develop a holistic ASW capability, integrating all ASW sensors (tactical, theater, national) via one integrated architecture and CONOPS for Tasking, Collection, Processing, Exploitation and Dissemination (TCPED). Field automated TCPED systems to enable rapid dissemination of ASW/MIW data to fleet units and MOCs.												
FY 2014 Accomplishments:												

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Additional details with respect to this line item are held at a higher classification.								
FY 2015 Plans: Additional details with respect to this line item are held at a higher classification.								
FY 2016 Base Plans: Additional details with respect to this line item are held at a higher classification.								
FY 2016 OCO Plans: N/A								
Title: Multi-Int. Data Integration and Advanced Analytics				1.000	1.400	1.000	-	1.000
Articles:				-	-	-	-	-
Description: Field a Naval Tactical Cloud architecture scaled to all afloat CRUDES, SUBFOR, Large Deck Carriers, and selected airborne ISR platforms -- leveraging existing COTS/GOTS technologies. Objective is to integrate and be able to fuse data and analytic services working across all ISR sensors, C2 decision-making systems, and Combat Systems.								
FY 2014 Accomplishments: Additional details with respect to this line item are held at a higher classification.								
FY 2015 Plans: Additional details with respect to this line item are held at a higher classification.								
FY 2016 Base Plans: Additional details with respect to this line item are held at a higher classification.								
FY 2016 OCO Plans: N/A								
Title: Open Ocean Surveillance (OOS)				2.134	2.500	2.019	-	2.019
Articles:				-	-	-	-	-
Description: Develop and field maritime specific ISR capabilities that leverage global coverage of GEOINT / ELINT systems. Focus on automatic identification and geolocation of Vessels of Interest and other targets of interest.								
FY 2014 Accomplishments:								

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Additional details with respect to this line item are held at a higher classification.						
FY 2015 Plans: Additional details with respect to this line item are held at a higher classification.						
FY 2016 Base Plans: Additional details with respect to this line item are held at a higher classification.						
FY 2016 OCO Plans: N/A						
Title: Strategic Signals and Unmanned Systems  Articles:  Description: Exploit strategically important foreign Command and Control systems to support top fleet OPLAN's for PACOM and CENTCOM. 2. Support improved Indications & Warning of adversary Unmanned Aircraft System (UAS). Support the development and improvement of Navy's Counter-UAS capabilities across the Joint integrated kill chain (surveillance, identification, and negation).  FY 2014 Accomplishments: Additional details with respect to this line item are held at a higher classification.  FY 2015 Plans: Additional details with respect to this line item are held at a higher classification.  FY 2016 Base Plans: Additional details with respect to this line item are held at a higher classification.  FY 2016 OCO Plans: N/A		2.400 -	2.805 -	2.000 -	- -	2.000 -
Title: National-to-Tactical Payload Integration  Articles:  Description: Develop capability integrating sensor payload processing, communications, and cryptographic security within a reconfigurable mission package for all unmanned, manned, and unattended ISR platforms (air, surface, subsurface). SRP SWAP offers several orders of magnitude less Space, Weight and Power (SWaP).  FY 2014 Accomplishments:		0.600 -	0.600 -	0.500 -	- -	0.500 -

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Additional details with respect to this line item are held at a higher classification.					
<b>FY 2015 Plans:</b> Additional details with respect to this line item are held at a higher classification.					
<b>FY 2016 Base Plans:</b> Additional details with respect to this line item are held at a higher classification.					
<b>FY 2016 OCO Plans:</b> N/A					
<b>Title:</b> Precision Fires & Geolocation	0.500	0.500	0.500	-	0.500
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Support and improve the interoperation of national and tactical sensor systems to perform precision geolocation of SIGINT related emitters. Improve the timely and efficient use of tactical imagery to support precision strike targeting and imagery analysis. Improve precision strike targeting through the use of Advanced NTM Imagery.					
<b>FY 2014 Accomplishments:</b> Additional details with respect to this line item are held at a higher classification.					
<b>FY 2015 Plans:</b> Additional details with respect to this line item are held at a higher classification.					
<b>FY 2016 Base Plans:</b> Additional details with respect to this line item are held at a higher classification.					
<b>FY 2016 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	7.134	8.325	6.519	-	6.519
<b>C. Other Program Funding Summary (\$ in Millions)</b>					
N/A					
<b>Remarks</b>					

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<b>D. Acquisition Strategy</b> Not Applicable		
<b>E. Performance Metrics</b> Not Applicable		