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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Army **Date:** February 2016

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0603766A / Tactical Electronic Surveillance System - Adv Dev
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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	-	9.255	13.472	15.730	-	15.730	20.595	20.998	21.403	21.969	Continuing	Continuing
907: Tactical Exploitation Of National Capabilities-MIP	-	9.255	13.472	15.730	-	15.730	20.595	20.998	21.403	21.969	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance, and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community (IC) into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the analysis and tasking, collection, processing, exploitation, dissemination and feedback (TCPEDF) of intelligence data. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	8.953	13.472	16.963	-	16.963
Current President's Budget	9.255	13.472	15.730	-	15.730
Total Adjustments	0.302	0.000	-1.233	-	-1.233
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.302	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-	-	-1.233	-	-1.233

Change Summary Explanation

FY 2015 change reflects a minor below threshold reprogramming.
 FY 2017 change reflects a refinement of program cost estimates.

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603766A / <i>Tactical Electronic Surveillance System - Adv Dev</i>				Project (Number/Name) 907 / <i>Tactical Exploitation Of National Capabilities-MIP</i>			
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
907: <i>Tactical Exploitation Of National Capabilities-MIP</i>	-	9.255	13.472	15.730	-	15.730	20.595	20.998	21.403	21.969	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community (IC) into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the analysis and tasking, collection, processing, exploitation, dissemination and feedback (TCPEDF) of intelligence data. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

FY2017 Base funding in the amount of \$15.730 million provides for: (1) engineering and collaborative development on multiple validated National Intelligence Community (IC) advanced developments to ensure continuous Army interoperability with those IC assets and architectures; (2) advanced development of more effective intelligence collection, processing, exploitation and dissemination (PED); and (3) advanced development of sensor capabilities for Air Vigilance (AV) Army Program of Record.

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

	FY 2015	FY 2016	FY 2017
Title: TENCAP Cross-agency Core Engineering activities	8.453	8.953	11.109
Description: Collaborate, develop and exploit emerging multi-intelligence and Space-based technologies to satisfy/accelerate Army Intelligence, Surveillance, Reconnaissance (ISR), Mission Command and Force Protection requirements.			
FY 2015 Accomplishments: Identified Army requirements in National developments; Ensured Army maintained access to sensors and Space-based capabilities; Monitored emerging technologies and systems; Exploited advances in commercial imagery and specific emitter identification technologies; Developed prototypes that improved Army intelligence products.			
FY 2016 Plans: Identify Army requirements in National developments; Ensure Army maintained access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Exploit advances in commercial imagery and signal technologies; Develop prototypes that improve Army intelligence products.			
FY 2017 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
Identify Army requirements in National developments; Ensure Army maintains access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Exploit advances in commercial imagery and signal technologies; Develop prototypes that improve Army intelligence products.				
<p>Title: Air Vigilance</p> <p>Description: Enhanced intelligence, force protection, and indications and warning capability initiated under Army TENCAP program.</p> <p>FY 2015 Accomplishments: Advanced sensor development and enhancements for Air Vigilance (AV) Army Program of Record ingest and continued effectiveness.</p> <p>FY 2016 Plans: Advanced sensor development and enhancements for Air Vigilance (AV) Army Program of Record ingest and continued effectiveness.</p> <p>FY 2017 Plans: Advanced sensor development and enhancements for Air Vigilance (AV) Army Program of Record ingest and continued effectiveness.</p>		0.500	0.515	0.530
<p>Title: Advanced Miniaturized Data Acquisition System(AMDAS)/ AMDAS Dissemination Vehicle (ADV)</p> <p>Description: AMDAS/ADV: Continued advanced engineering and development efforts to ensure continued interoperability and effectiveness of Army Corp-level TENCAP subsystems that provide national data to the tactical warfighter via intelligence community partners classified national systems.</p> <p>FY 2015 Accomplishments: AMDAS/ADV: Continued advanced engineering and development efforts to ensure continued interoperability and effectiveness of Army Corp-level TENCAP subsystems that provide national data to the tactical warfighter via intelligence community partners classified national systems.</p> <p>FY 2016 Plans: AMDAS/ADV: Advanced sensor development and prototyping of TENCAP subsystems to ensure alignment with national architecture enhancements such as the National Technical Means (NTM) space-based capabilities progress</p> <p>FY 2017 Plans:</p>		0.302	4.004	4.091

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
AMDAS/ADV: Advanced sensor development and prototyping of TENCAP subsystems to ensure alignment with evolving national architectural enhancements as the National Technical Means (NTM) space-based capabilities progress.			
Accomplishments/Planned Programs Subtotals	9.255	13.472	15.730

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• 0605766A RDTE: <i>National Integration To Tactical Systems (MIP), 0605766A</i>	18.254	10.599	4.955	-	4.955	7.201	8.360	7.349	7.537	Continuing	Continuing
• W60001 OPA: <i>Air Vigilance (AV), OPA2 (W60001)</i>	7.000	8.224	0.733	-	0.733	1.518	2.484	2.533	2.585	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Army Tactical Exploitation of National Capabilities (TENCAP) mission is a Congressionally mandated and chartered enduring requirement to leverage National intelligence capabilities useful to the tactical Army. The Army TENCAP acquisition strategy is driven by an annual TENCAP General Officer Steering Group (TGOSG), co-chaired by the Army G2; Army G8; and the Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology [ASA(ALT)]; and includes representatives from the Army G3; Army G6; Army Training and Doctrine Command (TRADOC); and the Program Executive Office for Intelligence, Electronic Warfare and Sensors (PEO IEW&S). The TGOSG reviews, validates, prioritizes, and guides Army TENCAP efforts, according to Army and Defense strategy. Based on this TGOSG guidance, Army TENCAP invests BA 6.4 RDTE in Intelligence Community (IC) developments during the more cost-effective advanced development phase to ensure Army requirements are met with minimal redundancy. Army TENCAP then uses BA 6.5 RDTE to manage the transition of these advanced development efforts through system development and integration into Army Programs of Record (POR). This strategy ensures these leveraged investments remain viable through multiple budget cycles, significantly increasing successful transition to recipient Army POR. With acquisition discipline and oversight provided by PEO IEW&S, Army TENCAP executes the TGOSG approved efforts through use of multiple contracts and agreements with the military, National agencies, Labs, Industry Partners and Academia for the full duration required to complete development and transition these National capabilities into enduring Army programs.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Army												Date: February 2016				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
2040 / 4				PE 0603766A / Tactical Electronic Surveillance System - Adv Dev				907 / Tactical Exploitation Of National Capabilities-MIP								
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Intelligence Engineers (SETA)	C/FFP	TASC, Inc. : Alexandria, VA	7.842	-		-		-		-		-	Continuing	Continuing	Continuing	
Intelligence Engineers (SETA)	C/TBD	TBD : TBD	0.000	3.011	Dec 2014	3.563	Dec 2015	4.115	Dec 2016	-		4.115	Continuing	Continuing	Continuing	
Intelligence Engineers(Matrix Gov)	MIPR	AGC : Alexandria, VA	2.770	1.005	Nov 2014	1.028	Nov 2015	1.174	Nov 2015	-		1.174	Continuing	Continuing	Continuing	
Subtotal			10.612	4.016		4.591		5.289		-		5.289	-	-	-	
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
TENCAP Core (Focus) Areas	Various	Multiple : Multiple	0.000	2.089	Nov 2014	1.130	Dec 2015	3.782	Dec 2016	-		3.782	Continuing	Continuing	0	
Air Vigilance	MIPR	Classified : MIPR	2.328	0.400	Nov 2014	0.515	Nov 2015	0.530	Nov 2016	-		0.530	Continuing	Continuing	Continuing	
AMDAS/ADV	MIPR	Classified : MIPR	3.500	-		4.004	Jan 2016	4.091	Dec 2016	-		4.091	Continuing	Continuing	Continuing	
Subtotal			5.828	2.489		5.649		8.403		-		8.403	-	-	-	
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Prgm Mgmt-Dir Gov,travel,etc.	Allot	Army TENCAP : Alexandria, VA	6.499	1.850	Oct 2014	2.156	Oct 2015	1.150	Oct 2016	-		1.150	Continuing	Continuing	Continuing	
Secured Facilities	MIPR	Army Geospatial : Ft. Belvoir, VA	0.768	0.800	Dec 2014	0.656	Dec 2015	0.423	Dec 2016	-		0.423	Continuing	Continuing	Continuing	
Subtotal			7.267	2.650		2.812		1.573		-		1.573	-	-	-	

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Army **Date:** February 2016

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Event Name	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
CORE Cross-Agency Advanced Development and Engineering	Development with Nat Intel Community																											
(1) TENCAP General Officer Steering Group (TGOSG) - annual - guides					▲ 1																							
(2) TENCAP General Officer Steering Group (TGOSG) - annual - guides					▲ 2																							
(3) TENCAP General Officer Steering Group (TGOSG) - annual - guides					▲ 3																							
(4) TENCAP General Officer Steering Group (TGOSG) - annual - guides					▲ 4																							
(5) TENCAP General Officer Steering Group (TGOSG) - annual - guides					▲ 5																							
AMDAS/ADV Advanced Development and Engineering																												
Air Vigilance Advanced Development and System prototype efforts																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Army		Date: February 2016
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603766A / <i>Tactical Electronic Surveillance System - Adv Dev</i>	Project (Number/Name) 907 / <i>Tactical Exploitation Of National Capabilities-MIP</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CORE Cross-Agency Advanced Development and Engineering	4	2006	4	2020
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY18-22 POM	4	2015	4	2015
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY19-23 POM	4	2016	4	2016
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY20-24 POM	4	2017	4	2017
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY21-25 POM	4	2018	4	2018
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY22-26 POM	4	2019	4	2019
AMDAS/ADV Advanced Development and Engineering	4	2014	1	2023
Air Vigilance Advanced Development and System prototype efforts	3	2013	1	2023