Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army		DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*

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	17.023	17.962	5.766	-	5.766	6.542	6.661	6.590	6.628	Continuing	Continuing
907: *Tactical Exploitation of National Capabilities-MIP*	17.023	17.962	5.766	-	5.766	6.542	6.661	6.590	6.628	Continuing	Continuing

Note

Change Summary Explanation: Funding - FY 2012: Funding partially restored to support development efforts that ensure Army continued interoperability with National Intelligence Community.

A. Mission Description and Budget Item Justification

The Army Special Program Office (ASPO) executes the Congressionally-directed Tactical Exploitation of National Exploitation of National CAPabilities (TENCAP) program under the direction of the TENCAP General Officers Steering Group (TGOSG). The TGOSG validated the three core tenets of TENCAP: (1) to understand and influence National technologies and architectures; (2) to perform cross-agency engineering to leverage National capabilities for Army purposes; and (3) to provide core engineering expertise across National and theater Intelligence, Surveillance, and Reconnaissance (ISR) layers to enable integration of space with the Army aerial, terrestrial, and foundation layers. ASPO rapidly develops Quick Reaction Capabilities (QRCs) (e.g. Air Vigilance) in response to Joint and Army-approved Operational Needs Statements (JUONS/ONS). TENCAP relies upon Subject Matter Experts (SMEs) with core competencies in National and theater level systems and capabilities, who are embedded or interface directly with Science and Technology (S&T) divisions at the NRO, NGA, and NSA, as well as other DOD and non-DOD S&T and academic institutions, and serves as the Army's primary technical interface to these organizations.

The TGOSG specifically directs TENCAP to support in three areas: (1) Integrated Intelligence Architecture (I2A), (2) space and cross-layer integration, and (3) assess current warfighter operational gaps and opportunities and recommend solutions.

TENCAP Subject Matter Experts and Technical Engineers protect Army equities in the Intelligence Community (IC) and ensure that critical Army requirements are addressed in the development of: (1) new sensor capabilities; (2) data processing, exploitation, and dissemination architectures; and (3) Joint Concepts of Operations (CONOPS). TENCAP also serves as the Army's centralized lead to evaluate, enhance, prototype, and transition new technologies/capabilities, developed in the Science & Technology (S&T) community, to Army tactical systems to include Distributed Common Ground System-Army (DCGS-A), Prophet, and Warfighter Information Network-Tactical (WIN-T). TENCAP facilitates integration of these systems into a coherent enterprise solution that serves as a force multiplier for Intelligence, Surveillance, and Reconnaissance (ISR), Battle Command, and Force Protection capabilities. TENCAP emerging technologies (1) ensure continued access to current National and Theater sensors and supporting ground architectures; and (2) exploit new opportunities that focus on improving the tasking, analysis, processing, exploitation and dissemination of the data collected. 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; (5) develop in-theater analytic tools to exploit data in near-real-time to support contingency operations.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2012 Army	**DATE:** February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	12.164	17.962	3.005	-	3.005
Current President's Budget	17.023	17.962	5.766	-	5.766
Total Adjustments	4.859	-	2.761	-	2.761
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	4.859	-	2.761	-	2.761

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011	

APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603766A: Tactical Electronic Surveillance System - Adv Dev	PROJECT 907: Tactical Exploitation of National Capabilities-MIP

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
907: Tactical Exploitation of National Capabilities-MIP	17.023	17.962	5.766	-	5.766	6.542	6.661	6.590	6.628	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Army Special Program Office (ASPO) executes the Congressionally-directed Tactical Exploitation of National Exploitation of National CAPabilities (TENCAP) program under the direction of the TENCAP General Officers Steering Group (TGOSG). The TGOSG validated the three core tenets of TENCAP: (1) to understand and influence National technologies and architectures; (2) to perform cross-agency engineering to leverage National capabilities for Army purposes; and (3) to provide core engineering expertise across National and theater Intelligence, Surveillance, and Reconnaissance (ISR) layers to enable integration of space with the Army aerial, terrestrial, and foundation layers. ASPO rapidly develops Quick Reaction Capabilities (QRCs) (e.g. Air Vigilance) in response to Joint and Army-approved Operational Needs Statements (JUONS/ONS). TENCAP relies upon Subject Matter Experts (SMEs) with core competencies in National and theater level systems and capabilities, who are embedded or interface directly with Science and Technology (S&T) divisions at the NRO, NGA, and NSA, as well as other DOD and non-DOD S&T and academic institutions, and serves as the Army's primary technical interface to these organizations.

The TGOSG specifically directs TENCAP to support in three areas: (1) Integrated Intelligence Architecture (I2A), (2) space and cross-layer integration, and (3) assess current warfighter operational gaps and opportunities and recommend solutions.

TENCAP Subject Matter Experts and Technical Engineers protect Army equities in the Intelligence Community (IC) and ensure that critical Army requirements are addressed in the development of: (1) new sensor capabilities; (2) data processing, exploitation, and dissemination architectures; and (3) Joint Concepts of Operations (CONOPS). TENCAP also serves as the Army's centralized lead to evaluate, enhance, prototype, and transition new technologies/capabilities, developed in the Science & Technology (S&T) community, to Army tactical systems to include Distributed Common Ground System-Army (DCGS-A), Prophet, and Warfighter Information Network-Tactical (WIN-T). TENCAP facilitates integration of these systems into a coherent enterprise solution that serves as a force multiplier for Intelligence, Surveillance, and Reconnaissance (ISR), Battle Command, and Force Protection capabilities. TENCAP emerging technologies (1) ensure continued access to current National and Theater sensors and supporting ground architectures; and (2) exploit new opportunities that focus on improving the tasking, analysis, processing, exploitation and dissemination of the data collected. 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; (5) develop in-theater analytic tools to exploit data in near-real-time to support contingency operations.

FY2012 Base funding in the amount of $5.766 million provides for (1) development activities that exploit and facilitate the integration of advancing Joint and National space/airborne sensor capabilities (multiple Intelligence disciplines) to ensure Army Tactical Commanders have access to and use of those assets, and (2) development of TENCAP General Officer Steering Group (TGOSG) validated and prioritized efforts to meet or accelerate ISR collection, targeting, and situational awareness requirements for contingency operations.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	**PROJECT** 907: *Tactical Exploitation of National Capabilities-MIP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: TENCAP Focus Areas (Emerging technologies) *Articles:*	6.422 0	9.042 0	-
Description: Collaborate, develop and exploit emerging multi-INT and Space-based technologies to satisfy/accelerate ISR, Battle Command and Force Protection requirements **FY 2010 Accomplishments:** Fielded two prototype Advanced Geo-Spatial Imagery (AGI) processors to OEF and OIF that allow local units to integrate National Technical Means as a basis for processing and analysis; led effort to develop Specific Emitter Identification (SEI) algorithm that increased twenty fold the satellite data available for analysis and reporting. Integrated broadcast receipt of Full Motion Video (FMV) at BCT and below **FY 2011 Plans:** Improve 24/7 Multi-INT sensor coverage; enhances MI Co GEOINT by adding SIGINT geo-positioning on FMV, Moving Target Indicator (MTI) tracks on FMV; HUMINT reports on FMV, and AGI exploitation tools; theater control of a National sensor; Develop strategy to institutionalize I2A for replication into new Areas of Operations (AOR) and maximize effectivity; Improve identity resolution of threat targets; improve geo-positioning accuracy across sensors/fires.			
Title: Exercises and Mission Rehearsals *Articles:*	0.686 0	1.205 0	-
Description: Develop simulations for TENCAP mission rehearsals, warfighter exercises, and CONOPS revision and development (Mission transitioning to PM DCGS-A in FY10) **FY 2010 Accomplishments:** Upgraded National and Theater sensor simulation system used on all Mission Rehearsal Exercises (MRX) to reflect new capabilities and CONOPS. Supported 5 Division/Corps MRXs. **FY 2011 Plans:** (Mission transitioned to PM DCGS-A in FY10, FY11 funds redirected to TFAs)			
Title: TENCAP Core for Cross-agency engineering *Articles:*	7.080 0	3.850 0	3.583
Description: Understand and influence development efforts and changes in Joint and National technologies and architectures, leverage investments, and ensure cross-layer integration of Space for tactical Army use. **FY 2010 Accomplishments:**			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Leveraged $3.8M MERIT from NRO for Army ISR priorities; began interoperability assessment of 4 different 3G handheld systems to be used at Squad level; coordinated establishment of emitter test range for National and Theater sensors; coordinated Army response to new NGA targeting requirements; coordinated CONOPS that allows BCTs to obtain commercial imagery *FY 2011 Plans:* Migrate new SEI capabilities to terrestrial and airborne sensors; ensure Army ISR requirements are included in National SIGINT CDD Increment 2; execute MERIT program; monitor emerging technologies and new national system developments; improve interoperability between Army and external communications architectures; lead integration of emerging wireless capabilities into a single Army architecture *FY 2012 Plans:* Execute MERIT program; monitor emerging technologies and new national system developments; demonstrate concept payloads to support persistent ISR with Long Endurance Multi-Intelligence Vehicle (LEMV)			
Title: Program Support at Army Special Program Office (ASPO) **Articles:** *Description:* Provide necessary Acquisition program oversight and support (Gov salaries, travel, admin, budget, logistics) for all TENCAP activities and Quick Reaction Capabilities (QRCs) projects *FY 2010 Accomplishments:* Provided management and support to all ASPO base programs and QRCs with successful transition of Tactical Exploitiation Systems (TES) capabilities to PM DCGS-A, and realized effeciencies through six in-sourcing conversion hires and more than 10% reduction of overall Program Support overhead costs *FY 2011 Plans:* Continues program support for all ASPO base programs and QRCs. *FY 2012 Plans:* Continues program support for all ASPO base programs and QRCs.	2.835 0	3.865 0	2.183
Accomplishments/Planned Programs Subtotals	17.023	17.962	5.766

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

TENCAP acquisition strategy is supported by an annual process that provides validates and directs TENCAP requirements. This begins with the annual spring TENCAP capabilities board hosted by the DA G2 with the goal to capture and represent Army-wide TENCAP requirements. This is followed by the TENCAP Council of Colonels (COC) in the May to June timeframe. An annual TENCAP General Officer Steering Group (TGSOG) is planned for July to August to support the POM cycle. The TGOSG is represented by the G2, G3, G6, G8, and ASA(ALT) who validate and prioritize proposed initiatives that address Army shortfalls or capability gaps. TENCAP partners with PEOs and Program Managers to facilitate transfer/integration of capabilities into Program of Record (POR) systems. The increase of funds in FY12 from the previous funding position reflects the Army's intent to fulfill the TGOSG direction and re-establish a funding level that enables TENCAP to achieve the three core tenets of the TGOSG: (1) to understand and influence National technologies and architectures; (2) to perform cross-agency engineering to leverage National capabilities for Army purposes; and (3) to provide core engineering expertise across National and theater Intelligence, Surveillance, and Reconnaissance (ISR) layers to enable integration of space with the Army aerial, terrestrial, and foundation layers. To maximize Army TENCAP efficiencies, TENCAP will: (1) leverage and exploit the Intelligence Community's (IC) and Science & Technology (S&T) development investments to minimize costs to the Army; (2) limit duplication of effort within Army programs; (3) improve transition of S&T capabilities to Army PORs.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		**DATE:** February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	**PROJECT** 907: *Tactical Exploitation of National Capabilities-MIP*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Intelligence Subject Matter Experts and Engineering Services (SETA)	C/FFP	TASC, Inc.:Alexandria, VA	5.700	2.950		1.660		-		1.660	Continuing	Continuing	Continuing
Imagery Intelligence Engineering Services (Matrix Government Engineers)	MIPR	Army Geospatial Center (AGC):Alexandria, VA	1.900	0.900		0.120		-		0.120	Continuing	Continuing	Continuing
Subtotal			7.600	3.850		1.780		-		1.780			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TENCAP Focus Areas (Emerging Technologies)	MIPR	Multiple:Multiple	-	5.177		1.803		-		1.803	Continuing	Continuing	0.000
Subtotal			-	5.177		1.803		-		1.803			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TENCAP Focus Areas (Emerging Technologies)	MIPR	Multiple:Multiple	-	7.730		2.183		-		2.183	Continuing	Continuing	0.000
Subtotal			-	7.730		2.183		-		2.183			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Exercises and Mission Rehearsals	MIPR	Multiple:Multiple	1.786	1.205		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.786	1.205		-		-		-			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army									DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY
2040: *Research, Development, Test & Evaluation, Army*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE
PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*

PROJECT
907: *Tactical Exploitation of National Capabilities-MIP*

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.386	17.962	5.766	-	5.766			

Remarks