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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0605626A: <i>Aerial Common Sensor - SDD</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	101.171	31.435	47.426	-	47.426	0.124	0.125	0.131	0.133	Continuing	Continuing
AC5: <i>Enhanced Medium Alt Recon Surv Sys (EMARSS) (MIP)</i>	101.171	31.435	47.426	-	47.426	0.124	0.125	0.131	0.133	Continuing	Continuing

Note

FY11 - Congressional rescission.
FY13 - Funding has been internally realigned to complete EMD.

A. Mission Description and Budget Item Justification

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. EMARSS provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS aircraft will be assigned to the U.S. Army Intelligence and Security Command's (INSCOM) Aerial Exploitation Battalions (AEB). EMARSS is an improvement over the existing Medium Altitude Reconnaissance and Surveillance System Quick Reaction Capability (MARSS QRC) in that it hosts an on board DCGS-A capability, improved satellite communications, and improved aircraft performance.

EMARSS will consist of a commercial derivative aircraft equipped with an Electro-optical/Infrared (EO/IR) Full Motion Video (FMV) sensor, a Communications Intelligence (COMINT) collection system, an aerial precision geolocation (APG) system, tactical line-of-site (LOS) and beyond line-of-site (BLOS) communications suites, two Distributed Common Ground System - Army (DCGS-A) enabled operator workstations and a self-protection suite. Built to allow future capabilities to be integrated on platform with the addition of the third carry-on workstation.

EMARSS will operate as a single platform in direct support of tactical missions. EMARSS, working with and incorporating elements of the DCGS-A, will provide efficient response to Combat Forces Intelligence, Surveillance and Reconnaissance (ISR) tasking with centralized Processing, Exploitation & Dissemination (PED) of ISR products while simultaneously transmitting critical FMV and other intelligence products to engaged tactical forces.

FY13 Base funding in the amount of \$47.426 million funds continues EMD activities, test activities to support a Forward Operational Assessment (FOA) which will be conducted in theater against current threats and inform a future production decision. This will position the Army to operationally deploy the assets.

FY13 OCO - No budget request

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2040: Research, Development, Test & Evaluation, Army		PE 0605626A: Aerial Common Sensor - SDD			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	211.500	31.465	3.335	-	3.335
Current President's Budget	101.171	31.435	47.426	-	47.426
Total Adjustments	-110.329	-0.030	44.091	-	44.091
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-110.329	-0.030	44.091	-	44.091

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0605626A: Aerial Common Sensor - SDD				PROJECT AC5: Enhanced Medium Alt Recon Surv Sys (EMARSS) (MIP)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
AC5: Enhanced Medium Alt Recon Surv Sys (EMARSS) (MIP)	101.171	31.435	47.426	-	47.426	0.124	0.125	0.131	0.133	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. EMARSS provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS aircraft will be assigned to the U.S. Army Intelligence and Security Command's (INSCOM) Aerial Exploitation Battalions (AEB). EMARSS is an improvement over the existing Medium Altitude Reconnaissance and Surveillance System Quick Reaction Capability (MARSS QRC) in that it hosts an on board (DCGS-A) capability, improved satellite communications, and improved aircraft performance.

EMARSS will consist of a commercial derivative aircraft equipped with an Electro-optical/Infrared (EO/IR) Full Motion Video (FMV) sensor, a Communications Intelligence (COMINT) collection system, an aerial precision geolocation (APG) system, tactical line-of-site (LOS) and beyond line-of-site (BLOS) communications suites, two Distributed Common Ground System - Army (DCGS-A) enabled operator workstations and a self-protection suite. Built to allow future capabilities to be integrated on platform with the addition of a third carry-on workstation.

EMARSS will operate as a single platform in direct support of tactical missions. EMARSS, working with and incorporating elements of the DCGS-A, will provide efficient response to Combat Forces Intelligence, Surveillance and Reconnaissance (ISR) tasking with centralized Processing, Exploitation & Dissemination (PED) of ISR products while simultaneously transmitting critical FMV and other intelligence products to engaged tactical forces.

FY13 Base funding in the amount of \$47.426 million funds continues EMD activities, test activities to support a Forward Operational Assessment (FOA) which will be conducted in theater against current threats and inform a future production decision.

FY13 OCO - No budget request

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2011	FY 2012	FY 2013
Title: Product Development	59.737	9.535	17.426
Articles:	0	0	
Description: Funding is provided for the following efforts:			
FY 2011 Accomplishments: Continued EMD contract. Purchase of aircraft, GFE and technical support. Continued DCGS-A on board processing and test.			
FY 2012 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Continues integration of prime mission equipment, software integration, and risk mitigation effort. FY 2013 Plans: Continues prime contractor systems support, and Engineering Change Proposals (ECP).				
Title: Support Costs Description: Support costs for matrix government, matrix contractor and PM Fixed Wing. FY 2011 Accomplishments: Support costs for matrix government, matrix contractor and PM Fixed Wing. FY 2013 Plans: Support costs for matrix government, matrix contractor and PM Fixed Wing.		Articles: 11.269 0	-	4.800
Title: Test and Evaluation Description: Funding is provided for the following effort: FY 2011 Accomplishments: Government Test and Flight Range Support. FY 2012 Plans: Government DT/OT, LUT, LFTE, FOA and Joint Test Integration Facility (JTIF). FY 2013 Plans: Government LFTE, FOA, Reliability Growth Testing (RGT), and JTIF.		Articles: 19.574 0	17.335 0	19.300
Title: Program Management Support Description: Funding is provided for the following effort: FY 2011 Accomplishments: Continues Program Management Office (PMO) and travel, Systems Engineering and Technical Assistance (SETA) and MITRE support. FY 2012 Plans:		Articles: 10.591 0	4.565 0	5.900

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013							
Continues Program Management Office (PMO) and travel, Systems Engineering and Technical Assistance (SETA) and MITRE support. FY 2013 Plans: Continues Program Management Office (PMO) and travel, Systems Engineering and Technical Assistance (SETA) and MITRE support.											
Accomplishments/Planned Programs Subtotals		101.171	31.435	47.426							
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• EMARSS: <i>NSA Defense Military Intelligence Program (MIP) funding</i>	1.294	6.151	5.226		5.226		0.766	0.766		0.000	16.370
D. Acquisition Strategy The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is a Program of Record based on an Army G-3/5/7 Directed Requirement (DR) signed 11 December 2009. The program entered the acquisition process in the Engineering and Manufacturing Development (EMD) phase with a 1QFY11 contract award that was competitively awarded to a single contractor. Program has completed System Design Review and is on track to begin modification and integration of the aircraft in 2Q12. Following a LUT, a FOA will be conducted to demonstrate the system against real world threats. Based on the outcomes of these activities, the Army will be positioned to operationally deploy these assets and inform a future production decision.											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
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Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/travel/OH expenses	Various	PM ARES:Aberdeen Proving Ground, MD	5.220	4.565		3.300		-		3.300	0.000	13.085	0.000
SETA Support	C/CPFF	PM ARES:Aberdeen Proving Ground, MD	3.045	-		1.600		-		1.600	0.000	4.645	0.000
MITRE	C/CPFF	PM ARES:Aberdeen Proving Ground, MD	2.326	-		1.000		-		1.000	0.000	3.326	0.000
Subtotal			10.591	4.565		5.900		-		5.900	0.000	21.056	0.000
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
EMARSS EMD	C/CPIF	Boeing Company:Ridley Park, PA	42.989	-		-		-		-	0.000	42.989	0.000
Other GFE to include COMSEC Equipment, Airborne Precision Geo Location (APG), and Vortex Data Links	Various	L3 COMM/NSA:Warner Robins AFB	3.463	-		-		-		-	0.000	3.463	0.000
Request for Equitable Adjustment (REA)	C/FP	Boeing Company:Ridley Park, PA	7.085	-		-		-		-	0.000	7.085	0.000
Prime Contractor Systems Support	C/FP	Boeing Company:Ridley Park, PA	-	7.065		5.535		-		5.535	0.000	12.600	0.000
Engineering Change Proposals (ECP)	C/CPIF	Boeing Company:Ridley Park, PA	-	-		11.891		-		11.891	0.000	11.891	0.000
DCGS-A & Orion S/W processing on board	Various	Various:Various	6.200	2.470		-		-		-	0.000	8.670	0.000
Subtotal			59.737	9.535		17.426		-		17.426	0.000	86.698	0.000

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Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Government	MIPR	Various:Various	9.405	-		3.679		-		3.679	0.000	13.084	0.000
Matrix Contractor Support	Various	Various:Various	1.864	-		1.121		-		1.121	0.000	2.985	0.000
Subtotal			11.269	-		4.800		-		4.800	0.000	16.069	0.000

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government DT/OT, LUT	Various	Various:Various	6.383	3.500		-		-		-	0.000	9.883	0.000
Test Flight Ranges	Various	Various:Various	6.391	4.000		-		-		-	0.000	10.391	0.000
Live Fire Test & Evaluation (LFTE)	MIPR	Various:Various	-	6.035		5.000		-		5.000	0.000	11.035	0.000
Forward Operational Assessment (FOA)	MIPR	Various:Various	-	1.000		7.000		-		7.000	0.000	8.000	0.000
Integrated Operational Test and Evaluation (IOT&E)	MIPR	Various:Various	-	-		1.000		-		1.000	0.000	1.000	0.000
Reliability Growth Testing (RGT)	MIPR	Various:Various	-	-		3.500		-		3.500	0.000	3.500	0.000
Joint Test & Integration Facility (JTIF)	Various	Various:various	6.800	2.800		2.800		-		2.800	0.000	12.400	0.000
Subtotal			19.574	17.335		19.300		-		19.300	0.000	56.209	0.000

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			101.171	31.435		47.426		-		47.426	0.000	180.032	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0605626A: <i>Aerial Common Sensor - SDD</i>		PROJECT AC5: <i>Enhanced Medium Alt Recon Surv Sys (EMARSS) (MIP)</i>	

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
Engineering Manufacturing & Development																												
SRR/SFR																												
System Design Review																												
CT/DT																												
LUT /FOA																												
MS C																												
IOT&E																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605626A: <i>Aerial Common Sensor - SDD</i>	PROJECT AC5: <i>Enhanced Medium Alt Recon Surv Sys (EMARSS) (MIP)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering Manufacturing & Development	3	2011	2	2013
SRR/SFR	4	2011	4	2011
System Design Review	1	2012	1	2012
CT/DT	2	2012	4	2012
LUT /FOA	4	2012	2	2013
MS C	2	2013	2	2013
IOT&E	1	2014	1	2014