

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2012 Army	<b>DATE:</b> February 2011
---	----------------------------

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				PE 0307207A: <i>Aerial Common Sensor (ACS)</i>							
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	115.432	-	-	-	-	-	-	-	-	0.000	115.432
024: <i>AERIAL COMMON SENSOR (MIP)</i>	115.432	-	-	-	-	-	-	-	-	0.000	115.432

**Note**

Change Summary Explanation: FY 2011 and FY 2012: OSD directed that this MIP program be moved to its own separate program element, 0605626A.

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

The Aerial Common Sensor program has ben restructured and renamed the Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS). 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 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.

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.

The National Security Agency's Military Intelligence Program (MIP) provides funding to support enhanced SIGINT capabilities.

There is no FY12 funding request for EMARSS in this funding line. That request is found in PE 0605626A, project AC5, Aerial Common Sensor SDD.

**UNCLASSIFIED**

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army				DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE				
2040: Research, Development, Test & Evaluation, Army		PE 0307207A: Aerial Common Sensor (ACS)				
BA 7: Operational Systems Development						
B. Program Change Summary (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget		115.430	-	-	-	-
Current President's Budget		115.432	-	-	-	-
Total Adjustments		0.002	-	-	-	-
• Congressional General Reductions			-			
• Congressional Directed Reductions			-			
• Congressional Rescissions		-	-			
• Congressional Adds			-			
• Congressional Directed Transfers			-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments 1		0.002	-	-	-	-

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army								<b>DATE:</b> February 2011			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0307207A: <i>Aerial Common Sensor (ACS)</i>				<b>PROJECT</b> 024: <i>AERIAL COMMON SENSOR (MIP)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
024: <i>AERIAL COMMON SENSOR (MIP)</i>	115.432	-	-	-	-	-	-	-	-	0.000	115.432
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>The Aerial Common Sensor program has been restructured and renamed the Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS). 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 MARSS QRC in that it hosts an on board DCGS-A capability, improved satellite communications, and improved aircraft performance.</p> <p>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.</p> <p>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 &amp; Dissemination (PED) of ISR products while simultaneously transmitting critical FMV and other intelligence products to engaged tactical forces.</p> <p>The National Security Agency's Military Intelligence Program (MIP) provides funding to support enhanced SIGINT capabilities.</p> <p>There is no FY12 funding request for EMARSS in this funding line. That request is found in PE 0605626A, project AC5, Aerial Common Sensor SDD.</p>											
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>								<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	
<b>Title:</b> EMARSS DEVELOPMENT								100.695	-	-	
<b>Articles:</b>								0			
<b>Description:</b> Funding is provided for the following effort											
<b>FY 2010 Accomplishments:</b> Start EMD contract, purchases 4 EMD aircraft, purchase GFE and technical support, DCGS-A on board processing.											
<b>Title:</b> SUPPORT SERVICES								14.737	-	-	
<b>Articles:</b>								0			

**UNCLASSIFIED**

**UNCLASSIFIED**

## Army

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0307207A: Aerial Common Sensor (ACS)				PROJECT 024: AERIAL COMMON SENSOR (MIP)					
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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/O/H expenses	Various	PM, AC Sensors::Aberdeen, MD	2.399	-		-		-		-	Continuing	Continuing	Continuing
Program SETA Support	Various	CACI,BAH, USFalcon, LM::NJ/ DC	4.500	-		-		-		-	Continuing	Continuing	Continuing
SETA Mgmt Support	Various	Mitre::Various	1.400	-		-		-		-	Continuing	Continuing	Continuing
Matrix Support	Various	Multiple::Ft. Monmouth, NJ	2.400	-		-		-		-	Continuing	Continuing	Continuing
Gov't Matrix Support	Various	PMFW, AMRDEC::Redstone, AL	2.600	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			13.299	-		-		-		-			
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	Various	TBD:TBD	88.101	-		-		-		-	Continuing	Continuing	Continuing
Vortex Data Links/PALS/DBOS	Various	L3COMM,:Warner Robins AFB	5.890	-		-		-		-	Continuing	Continuing	Continuing
Other GFE/COMSEC Equipment	Various	TBD:TBD	0.870	-		-		-		-	Continuing	Continuing	Continuing
Airborne Precision Geo-Location (APG) System	Various	NSA:Washington	1.270	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			96.131	-		-		-		-			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
DCGS-A & Orion S/W processing on Board	Various	Various:Various	5.100	-		-		-		-	Continuing	Continuing	Continuing

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2012 Army											<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0307207A: <i>Aerial Common Sensor (ACS)</i>				<b>PROJECT</b> 024: <i>AERIAL COMMON SENSOR (MIP)</i>					

  

<b>Support (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			5.100	-		-		-		-			

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Test Support	Various	Gov't/various:Various	0.900	-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.900	-		-		-		-			

  

			<b>Total Prior Years Cost</b>	<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			115.430	-		-		-		-			

  

**Remarks**

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 Army			<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0307207A: <i>Aerial Common Sensor (ACS)</i>		<b>PROJECT</b> 024: <i>AERIAL COMMON SENSOR (MIP)</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
Material Development Decision (MDD)	■																											
Contract Award IPR		■																										
Engineering Manufacturing & Development		■	■	■	■	■	■	■																				
SRR/SFR			■																									
System Design Review					■	■																						
CT/DT					■	■																						
DT/OT & LUT						■	■																					
MS C							■																					
LRIP							■	■	■	■																		
IOT&E									■	■																		
Full Rate Production										■	■																	
Production											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 Army			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0307207A: <i>Aerial Common Sensor (ACS)</i>	<b>PROJECT</b> 024: <i>AERIAL COMMON SENSOR (MIP)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Material Development Decision (MDD)	1	2010	1	2010
Contract Award IPR	2	2010	2	2010
Engineering Manufacturing & Development	2	2010	3	2011
SRR/SFR	3	2010	3	2010
System Design Review	1	2011	1	2011
CT/DT	1	2011	2	2011
DT/OT & LUT	2	2011	3	2011
MS C	3	2011	3	2011
LRIP	3	2011	2	2012
IOT&E	1	2012	1	2012
Full Rate Production	2	2012	2	2012
Production	2	2012	3	2015

**UNCLASSIFIED**