

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0305206A - Airborne Reconnaissance Adv Development				PROJECT K98			
COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost	
K98 MASINT SENSOR INTEGRATION (JMIP)	4704	8111	5398	5599	5320	5544	6005	6103	0	58164	

A. Mission Description and Budget Item Justification: This project continues development of advanced tactical reconnaissance and surveillance sensor technologies and develops technology for the on-board fusion of multidiscipline intelligence sensors, i.e. Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), and Measurement and Signature Intelligence (MASINT). Hyperspectral, multi-spectral, interferometric synthetic aperture radar sensors, advanced target and image exploitation software will be developed. Additionally, efforts will be directed toward the development of advanced multi-mode Electrooptic/Infrared (EO/IR), multi-mode MTI/SAR radar, foliage penetration radar, multi-spectral/hyperspectral imageries (MSI/HSI), MASINT on-board fusion and registration, and cueing of the EO/IR/SAR/HSI imaging sensor. The Hyperspectral Longwave Imager for the Tactical Environment (HyLITE) is the next generation airborne day/night hyperspectral reconnaissance sensor for the detection and identification of camouflaged and concealed targets in all terrain environments. Design improvements will be implemented and flight testing conducted to assess system performance.

FY2006/2007 continue MTI/SAR and MSI/HSI technology development and supports the integration of these for system demonstrations.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
Continues spiral development and integration of multi-mode MTI/SAR/MSI/HSI/EO/IR capabilities for the ACS program	4704	5128	5398	5599
Continue development and test efforts for HyLITE	0	2983	0	0
Totals	4704	8111	5398	5599

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
**0305206A - Airborne Reconnaissance Adv
 Development**

PROJECT
K98

<u>B. Program Change Summary</u>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2005)	5128	5412	5502
Current Budget (FY 2006/2007 PB)	8111	5398	5599
Total Adjustments	2983	-14	97
Net of Program/Database Changes			
Congressional Program Reductions	-117		
Congressional Rescissions			
Congressional Increases	3100		
Reprogrammings			
SBIR/STTR Transfer			
Adjustments to Budget Years		-14	97

FY 2005 Congressional increase for HyLITE tactical hyperspectral sensor.

<u>C. Other Program Funding Summary</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
0203744A/028 ACS	102755	121879	164646	239439	167491	56578	64782	21954	Continue	Continue
A02005 Aerial Common Sensor	0	0	0	0	0	403445	300096	403358	Continue	Continue

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
**0305206A - Airborne Reconnaissance Adv
Development**

PROJECT
K98

D. Acquisition Strategy: The ACS Technology Demonstration (TD) phase completed in 3QFY03. The System Development and Demonstration (SDD) phase, was initiated 4QFY04 with a competitively awarded Cost-Plus-Award-Fee contract. This effort will include the development of MTI/SAR/MSI/HSI and multi-sensor technologies identified and found critical to the Aerial Common Sensor (ACS) program based upon the ACS Concept Exploration (CE) and TD phase.

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305206A - Airborne Reconnaissance Adv
Development

PROJECT
K98

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . ACS Technology contract for MTI/SAR/MIS/HSI/EO/IR	C-CPAF	Lockheed Martin, Littleton, CO	4246	4716	1Q	4965	1Q	5159	1Q	Continue	19086	Continue
b . HyLITE Development/Test/Demo	C/CPFF	BAE, NY	0	2583	2Q	0		0		0	2583	0
Subtotal:			4246	7299		4965		5159		Continue	21669	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
**0305206A - Airborne Reconnaissance Adv
 Development**

PROJECT
K98

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . ACS Integration and Demonstration of MTI/SAR/MSI/HSI/EO/IR technologies	MIPR	NVESD, Ft Belvoir, VA	429	250	1-2Q	250	1-2Q	250	1-2Q	Continue	1179	Continue
b . HyLITE Test Support	Gov't	NVESD, Ft Belvoir, VA	0	200	3Q	0		0		0	200	0
Subtotal:			429	450		250		250		Continue	1379	Continue

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . ACS Program & Engineering Support; MTI/SAR/MSI/HSI/EO/IR	MIPR	CRDEC, I2WD	938	162	1Q	183	1Q	190	1Q	Continue	1473	Continue
b . HyLITE Matrix Support	MIPR	NVESD, FT Belvoir, VA	0	144	2Q	0		0		0	144	0
c . HyLITE Program Mgt	In-House	PM Night Vision, Ft Belvoir, VA	0	56	2-4Q	0		0		0	56	0
Subtotal:			938	362		183		190		Continue	1673	Continue

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

**0305206A - Airborne Reconnaissance Adv
Development**

PROJECT

K98

--	--	--	--	--	--	--	--	--	--	--	--

Project Total Cost:

5613

8111

5398

5599

Continue

24721

Continue

--	--	--	--	--	--	--	--	--	--	--	--

Schedule Detail (R4a Exhibit)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
**0305206A - Airborne Reconnaissance Adv
 Development**

PROJECT
K98

<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
HyLITE Test and Demonstration		2-4Q	1Q					
ACS MTI/SAR/MSI/HSI/EO/IR technology demonstration and integration	4Q	1-4Q						