

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604766A - Tactical Exploitation System/DCGS-A (TIARA)

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	57867	59693	56662	60070	48853	42460	42284	0	481793
909 TACTICAL SURVEILLANCE SYSTEMS-ENG DEV (TIARA)	43087	0	239	219	217	210	204	0	158080
957 TACTICAL EXPLOITATION SYSTEM (TES)/DCGS-A (TIARA)	14780	59693	56423	59851	48636	42250	42080	0	323713

A. Mission Description and Budget Item Justification: This project supports the engineering development/enhancement of the Tactical Exploitation System (TES), Division TES (DTES), TES Light (TES-L), Distributed Common Ground Station-Army (DCGS-A), Advanced Electronic Processing Dissemination System (AEPDS) Mobile Integrated Tactical Terminal (MITT), and Forward Area Support Terminal (FAST). TES and DCGS-A will incorporate the standards and protocols dictated by the Common Imagery Ground/Surface System (CIG/SS) program. TES brings all of the existing and emerging capabilities Advanced Electronic Processing Dissemination System (AEPDS), Modernized Imagery Exploitation System (MIES) and Enhanced Tactical Radar Correlator (ETRAC) into an integrated common baseline that is downsized, modular and scaleable to meet a wide range of contingency requirements. TES interfaces with numerous satellite and aircraft tactical sensors and processes and exploits their data, imagery, and information. TES provides the commander with maximum flexibility to satisfy intelligence needs under a wide range of operational scenarios. TES operators can perform multiple imagery Intelligence (IMINT), Signal Intelligence (SIGINT), cross-intelligence, or dissemination functions from any workstation. TES provides extensive communication capabilities, including UHF, S,X,C and Ku radio frequency band communications. TES interfaces with and serves as the preprocessor for the All Source Analysis (ASAS), Common Ground Station (CGS), and the Digital Topographical Support System (DTSS). TENCAP Common Baseline addresses common subsystems, planned improvements, key activities and ongoing/planned initiatives determined to have potential application to multiple TENCAP systems. DCGS-A will incorporate the capabilities of TES, Guardrail/Information Node (GR/IFN), and Common Ground Station (CGS). TES and DCGS-A will incorporate emerging theater and national Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. MIES, ETRAC, and the CIG/SS portion of TES are funded under PE 0305208A. Specific details are provided in the Tactical Intelligence and Related Activities (TIARA) Congressional Budget Justification Book and the Joint Military Intelligence Programs (JMIP) Congressional Budget Justification Book. These systems support the Legacy to Objective transition path of the Transformation Campaign Plan. This program is designated as a DOD Space Program.

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<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	57884	68205	56556
Appropriated Value	58419	60205	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-512	0
b. SBIR / STTR	0	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	-17	0	0
e. Rescissions	-535	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	106
Current Budget Submit (FY 2003 PB)	57867	59693	56662

Program Change Summary:
 FY 2002 decrease of \$8.0M to the Tactical Exploitation System (TES) due to program delays and execution.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY 5 - Engineering and manufacturing development		PE NUMBER AND TITLE 0604766A - Tactical Exploitation System/DCGS-A (TIARA)					PROJECT 957			
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
957 TACTICAL EXPLOITATION SYSTEM (TES)/DCGS-A (TIARA)	14780	59693	56423	59851	48636	42250	42080	0	323713	

A. Mission Description and Budget Item Justification: This project supports the engineering development/enhancement of the Tactical Exploitation System (TES), Division TES (DTES), TES Light (TES -L), and Distributed Common Ground Station -Army (DCGS-A). TES interfaces with numerous satellite and aircraft tactical sensors and processes and exploits their data, imagery, and information. TES provides the commander with maximum flexibility to satisfy intelligence needs under a wide range of operational scenarios. TES operators can perform multiple imagery intelligence (IMINT), signal intelligence (SIGINT), cross-intelligence, or dissemination functions from any workstation. TES provides extensive communication capabilities, including UHF, S,X,C and Ku radio frequency band communications. TES interfaces with and serves as the preprocessor for the All Source Analysis (ASAS), Common Ground Station (CGS), and the Digital Topographical Support System (DTSS). TES incorporates the standards and protocols dictated by the Common Imagery Ground/Surface System (CIG/SS) program. TES brings all of the existing and emerging capabilities Advanced Electronic Processing Dissemination System (AEPDS), Modernized Imagery Exploitation System (MIES) and Enhanced Tactical Radar Correlator (ETRAC) into an integrated common baseline that is downsized, modular and scaleable to meet a wide range of contingency requirements. DCGS-A will incorporate the capabilities of TES, Guardrail/Information Node (GR/IFN), and Common Ground Station (CGS). TES and DCGS-A will incorporate emerging theater and national intelligence, surveillance, and reconnaissance (ISR) capabilities. These systems support the Legacy to Objective transition path of the Transformation Campaign Plan. CIG/SS portion of TES are funded under PE 0305208A. Specific details are provided in the Tactical Intelligence and Related Activities (TIARA) Congressional Budget Justification Book and the Joint Military Intelligence Programs (JMIP) Congressional Budget Justification Book.

ASPO program management support costs for these efforts are funded under PE 0603766 Project 907 in FY02 and out.

FY 2001 Accomplishments:

- 750 Provided program management support and upgrades to Semi Automated Imagery Processor (SAIP) activities. This effort was funded under Project D909 in FY 2000.
- 2360 Initiated development of SAIP miniaturization prototype.
- 2544 Completed engineering development of TES #2 Forward and Main, including integration of existing reusable components (i.e. MIDAS, DE, CIP, MIST) and the purchase and integration of COTs/GOTs GFE. This effort was funded under Project 909 in FY 2000.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604766A - Tactical Exploitation System/DCGS-A
(TIARA)**

PROJECT

957

FY 2001 Accomplishments: (Continued)

- 9126 Continued engineering development of TES #3 Forward and Main, including integration of existing reusable components (i.e. MIDAS, DE, CIP, MIST) and the purchase and integration of COTs/GOTs GFE. This effort was funded under Project 909 in FY 2000.

Total 14780

FY 2002 Planned Program

- 11850 Ensures that TES has joint interoperability with current and future sensors (Global Hawk, Future Imagery Architecture).
- 9572 Complete engineering development of TES #3 Forward and Main, including integration of existing reusable components (i.e. MIDAS, DE, CIP, MIST) and the purchase and integration of COTs/GOTs GFE. This effort was funded under Project 909 in FY 2000.
- 10664 Initiate engineering development of TES #4 Forward, including integration of existing reusable components (i.e. MIDAS) and the purchase and integration of COTs/GOTs GFE.
- 2691 Initiate engineering development of TES #5 Forward, including integration of existing reusable components (i.e. MIDAS) and the purchase and integration of COTs/GOTs GFE.
- 4500 Continue development of miniaturized SAIP prototype.
- 4876 Initiate engineering development of TES Basic for Corps and EAC not receiving a TES -Main.
- 9488 Continue software upgrades and enhancements of TES baseline to fully exploit national and theater capabilities.
- 3746 Continue support to TES/DCGS-A development (Army Topographic Engineering Center (TEC) and FFRDC (Aerospace)).
- 2306 TES-Light prototype development

Total 59693

FY 2003 Planned Program

- 9000 Continue to ensure that TES has joint interoperability with current and future sensors (FIA).
- 8332 Complete engineering development of TES Basic.
- 8336 Complete engineering development of TES #4 Forward, including integration of existing reusable components (MIDAS) and the purchase and integration of COTs/GOTs GFE.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

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5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604766A - Tactical Exploitation System/DCGS-A
(TIARA)**

PROJECT

957

FY 2003 Planned Program (Continued)

- 8335 Complete engineering development of TES #5 Forward, including integration of existing reusable components (MIDAS) and the purchase and integration of COTs/GOTs GFE.
- 8555 Initiate engineering development of TES #6 Forward, including integration of existing reusable components (MIDAS) and the purchase and integration of COTs/GOTs GFE.
- 666 SAIP enhancements, upgrades, and program support.
- 3740 Continue support to TES/DCGS-A development (Army Topographic Engineering Center (TEC) and FFRDC (Aerospace)).
- 9459 Continue software upgrades and enhancements of TES baseline to fully exploit national and theater capabilities.

Total 56423

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604766A - Tactical Exploitation System/DCGS-A
(TIARA)

PROJECT
957

<u>B. Other Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
PE 0603766A Project 907	0	16605	16392	17396	16369	15248	16888	Continuing	Continuing
PE 0604766A TENCAP Project 909 (TIARA)	43087	0	239	219	217	210	204	Continuing	Continuing
PE 0305208A (JMIP)	7839	72095	15683	15911	15625	45089	12933	Continuing	Continuing
Other Procurement Army, OPA-2	0	0	0	0	0	0	0	0	0
BZ7315 TENCAP (TIARA)	12735	0	0	0	0	5933	0	0	23019
BZ7316 CIG/SS (JMIP)	2807	2591	2617	2656	2713	999	64753	Continuing	Continuing
BZ7317 Tactical Surveillance System (TIARA)	0	33410	17576	43675	18880	6008	7039	Continuing	Continuing

C. Acquisition Strategy: As pioneers in streamlined acquisition, ASPO's success in delivering systems as those described above to warfighters can be directly attributed to an environment emphasizing stable funding, low density acquisition, minimal use of MILSPECS, and managed competition. By tailoring existing technology, leveraging the best commercial practices and using commercial and government-off the shelf software, ASPO minimizes risk while maximizing efficiency. Finally, Government and contractor personnel and facilities accomplish dedicated cradle to grave Integrated Logistics Support (ILS) for all systems through a coordinated effort.

<u>D. Schedule Profile</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Complete development of TES #2 Forward, Main (-)	4Q						
Complete development of TES #3 Main (-)	4Q						
Complete development of TES #3 Forward		4Q					
Complete development of TES-Light prototype		4Q					
Complete development of TES #4 Forward			4Q				
Complete development of TES #5 Forward			4Q				
Complete development of TES BASIC #1			4Q				
Complete development of TES Basic #2-#4				4Q			
Complete development of TES #6 Forward				4Q			
Complete development of TES #2 MAIN(+)						4Q	
Complete development of TES #3 MAIN(+)						4Q	
Complete development of TES Trainer						4Q	

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604766A - Tactical Exploitation System/DCGS-A
(TIARA)

PROJECT
957

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . TES #2 EDM *	SS/CPAF	Northrop Grumman, Linthicum, MD	0	2544	1Q	0		0		0	2544	2544
b . TES #3 EDM *	SS/CPAF	Northrop Grumman, Linthicum, MD	0	9126	2Q	9572	2Q	0		0	18698	18698
c . TES #4 EDM *	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		10664	2Q	8336	1Q	0	19000	19000
d . TES #5 EDM *	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		2691	2Q	8335	2Q	0	11026	11026
e . TES #6 EDM *	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		0		8555	3Q	0	8555	8555
f . TES Basic	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		4876	2Q	8332	2Q	0	13208	13208
g . CCRB	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		9488	2Q	9459	2Q	0	18947	18947
h . SAIP Prototype	SS/CPAF	Northrop Grumman, Linthicum, MD	0	2360	2Q	4500	2Q	660	1Q	0	7520	7520
i . TDL	SS/CPAF	Northrop Grumman, Linthicum, MD	0	0		11850	2Q	9000	2Q	0	20850	20850

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

**0604766A - Tactical Exploitation System/DCGS-A
(TIARA)**

957

I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
j . TES-L prototype		Northrop Grumman. Linthicum, MD	0	0		2306	2Q	0		0	2306	2306
Subtotal:			0	14030		55947		52677		0	122654	122654

Remarks: * Effort funded in project D909 prior to FY01.

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering (Government)	N/A	TEC, Alexandria, VA	0	400	1Q	2141	1Q	2141	1Q	Continue	Continue	Continue
b . Contractor	C/FFP	Litton TASC, Westfields, VA	0	350	2Q	350	2Q	350	2Q	Continue	Continue	Continue
c . FFRDC	OGA	Aerospace Corp, Chantilly, VA	0	0		1255	1Q	1255	1Q	Continue	Continue	Continue
Subtotal:			0	750		3746		3746		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

**0604766A - Tactical Exploitation System/DCGS-A
(TIARA)**

957

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Not applicable			0	0		0		0		0	0	0
Subtotal:			0	0		0		0		0	0	0

Remarks: Not Applicable

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Not applicable			0	0		0		0		0	0	0
Subtotal:			0	0		0		0		0	0	0

Remarks: Not Applicable

Project Total Cost:			0	14780		59693		56423		Continue	Continue	Continue
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