

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604766A - Tactical Exploitation System/DCGS (TIARA)

COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost		57229	26022	21821	0	0	0	0	0	221927
909	TACTICAL SURVEILLANCE SYSTEMS-ENG DEV (TIARA)	1769	0	0	0	0	0	0	0	44176
957	TACTICAL EXPLOITATION SYSTEM (TES)/DCGS-A (TIARA)	55460	26022	21821	0	0	0	0	0	177751

A. Mission Description and Budget Item Justification: This program is designated as a DOD Space Program. It supports the engineering development/enhancement of the Tactical Exploitation System (TES), Division TES (DTES), TES Lite Variant (TES-L), and Distributed Common Ground System-Army (DCGS-A). TES, as an integral part of DCGS-A, will incorporate the standards and protocols dictated by the Common Imagery Ground/Surface System (CIG/SS) program. TES brings the legacy 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 to exploit 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 a preprocessor for the All Source Analysis (ASAS), Common Ground Station (CGS), Guardrail Information Node (GRIFN), and the Digital Topographical Support System (DTSS). DCGS-A will incorporate the capabilities of TES, Guardrail/Information Node (GR/IFN), and Common Ground Station (CGS). TES, as an integral part of DCGS-A, will incorporate emerging theater and national Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. Specific details for TES 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 Current to Future Force transition path of the Transformation Campaign Plan.

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<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	57255	19695	16
Current Budget (FY 2005 PB)	57229	26022	21821
Total Adjustments	-26	6327	21805
Congressional program reductions		-247	
Congressional rescissions			
Congressional increases		6600	
Reprogrammings	-26	-26	
SBIR/STTR Transfer			
Adjustments to Budget Years			21805

FY 2004 Congressional increase of \$3.6M (D957) for TES Forward (-) to I Corps.
FY 2004 Congressional increase of \$3M (D909) for the Broadband Intelligence Training System.
FY 2005 Field TES Forward (-) variants to I Corps and EUSA (\$21M of FY05 funds).
FY 2005 RDTE Funding for TES Lite (\$1M of FY 2005 funds) preprocurement refinement.

Schedule Detail (R4a Exhibit)		February 2004
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604766A - Tactical Exploitation System/DCGS (TIARA)	PROJECT 0604766A
<p><u>Schedule Detail:</u> Not applicable for this item.</p>		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604766A - Tactical Exploitation System/DCGS (TIARA)				PROJECT 957		
COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
957	TACTICAL EXPLOITATION SYSTEM (TES)/DCGS-A (TIARA)	55460	26022	21821	0	0	0	0	0	177751
<p><u>A. Mission Description and Budget Item Justification:</u> This project supports the engineering development/enhancement of the Tactical Exploitation System (TES), Division TES (DTES), and the related Distributed Common Ground System - Army (DCGS-A) capability. TES brings a common inter-service, multi-discipline ISR capability together for the first time, enabling theater commanders to better use assigned ISR assets in support operations. TES interfaces with numerous satellite and aircraft tactical sensors and processes to exploit their data, imagery, and information. TES provides commanders 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 a 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 of the 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, as an integral part of DCGS-A will continue to incorporate emerging theater and national intelligence, surveillance, and reconnaissance (ISR) capabilities. CIG/SS portion of TES are funded under 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. Funding for technical evolution and operational currency for TES ends in FY 2004. Other than funds to build system in FY 2005, RDTE funding will be used to keep pace with sensor upgrades and new production sensors and platforms.</p> <p>Increase in FY05 is intended to devise a TES Forward (MINUS) derivation of the TES baseline for two gaining commands. These two systems are required to replace defielded TENCAP Equipment (AEPDS) which occurs NLT 1st QTR FY05. An additional \$1M of RDTE provide to do engineering and development work for TES Lite prototype which will be the technical foundation for procuring 21 TES-Lites with SSN BZ7317 Procurement Funds (FY05). This project supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).</p>										

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PROJECT

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Accomplishments/Planned Program

	FY 2003	FY 2004	FY 2005
TES Forward and MAIN Interop and Upgrade Spirals. Funding transitioned to PE 0305208 Project 956 in FY04 and out.	11250	0	0
Objective Architecture Software Spirals - Development Engineering Builds.	6749	0	0
Field Motivated Fixes, Baseline Builds, and Configuration Control Board. Starting in FY 04 planned funding supplemented with PE 0305208, Project 956. However, that funding source also prematurely extinguished for TES.	5071	5495	310
DTES Production and Interop and Upgrade Spirals. Funding transitioned to PE 0305208 Project 956 in FY04 and out.	10111	0	0
Advance Planning and Engineering for Future Requirements and Studies to include DCGS transformation, Future Combat Systems (FCS), and National Imagery projects.	4311	2327	0
Continued TES/DCGS-A development through Army Topographic Engineering Center (TEC) and FFRDC (Aerospace).	3346	3465	0
System Engineering and Technical Assistance, IPT Participation across programs and Services, Roadmaps, and DCGS Transformation Plans.	7053	6234	0
Ensures interoperability across the Services and other programs for evolving Sensors, data links, platform integration, COMMS, and Multilevel Security Engineering Efforts.	7130	1901	0
SAIP prototype single vehicle development, fielding, integration, and evaluation. Starting in FY-03 shared coverage with PE 0305208 Project 956 and in FY-04 covered in PE 0305208 Project D956.	439	0	0
TES Forward (MINUS) for Korea. (EUSA)	0	0	10500
TES Forward (MINUS) for I-Corps.	0	3600	10500
TES Lite development, integration and evaluation. Starts engineering effort that produces baseline on which SSN BZ7317 Procurement for FY05-07 occurs.	0	0	511
Broadband Intelligence Training System	0	3000	0
Totals	55460	26022	21821

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B. Other Program Funding Summary

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
PE 0604766A TENCAP Project 909 (TIARA)	1769	0	0	0	0	0	0	0	1769
PE 0305208A Project 956 (JMIP)	44805	13654	9751	10136	10643	11104	11603	Continuing	Continuing
BZ7316 CIG/SS (JMIP)	15803	2667	9575	9946	24632	33579	34287	Continuing	Continuing
BZ7317 Tactical Surveillance System (TIARA)	17100	0	14094	0	0	0	0	0	65328

C. Acquisition Strategy: As pioneers in streamlined acquisition, ASPO's success in delivering TENCAP systems (as those described above) to warfighters is directly attributed to an environment emphasizing space 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 and accelerated system production cycles (less time for first Unit of Issue (FUI) and subsequent productions). Government and contractor personnel and facilities accomplish dedicated cradle to grave Integrated Logistics Support (ILS) for all systems through a coordinated effort.

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604766A - Tactical Exploitation System/DCGS (TIARA)					PROJECT 957		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . TES DTES	SS/CPAF	Northrop Grumman, Linthicum, MD	7182	10111	1Q	0		0		0	17293	13208
b . Software upgrades and enhancements of TES baseline.	SS/CPAF	Northrop Grumman, Linthicum, MD	12192	11820	1Q	6469	1Q	21821	1Q	0	52302	100047
c . SAIP Prototype	SS/CPAF	Northrop Grumman, Linthicum, MD	6860	439	1Q	0		0		0	7299	7520
d . TES joint interoperability with current and future sensors.	SS/CPAF	Northrop Grumman, Linthicum, MD	11850	7130	1Q	1901	1Q	0		0	20881	20850
e . TES Fwd and Main Sustainability/Interoperability Retrofits	SS/CPAF	Northrop Grumman, Linthicum, MD	0	11250	1Q	0		0		0	11250	0
f . Advance Planning, System Engineering, Future Requirements, Eng Transformation Plans	SS/CPAF	Northrop Grumman, Linthicum, MD	0	11364	1Q	7587	1Q	0		0	18951	0
g . TES Forward (MINUS) I Corps lead items.			0	0	2-4Q	3600	2-4Q	0		0	3600	0

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604766A - Tactical Exploitation System/DCGS (TIARA)					957		
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			38084	52114		19557		21821		0	131576	141625
Subtotal:												
Remarks: *												
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering (Government)	N/A	TEC, Alexandria, VA	2541	1741	1Q	1745	1Q	0		Continue	6027	Continue
b . Contractor	C/FFP	Northrop Grumman Info Tech/TASC	700	350	2Q	350	2Q	0		Continue	1400	Continue
c . FFRDC	OGA	Aerospace Corp, Chantilly, VA	1255	1255	1Q	1370	1Q	0		Continue	Continue	Continue
d . Broadband Intelligence Training System			0	0	2Q	3000	2Q	0		0	3000	0
Subtotal:			4496	3346		6465		0		Continue	Continue	Continue

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 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 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 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:			42580	55460		26022		21821		Continue	Continue	Continue

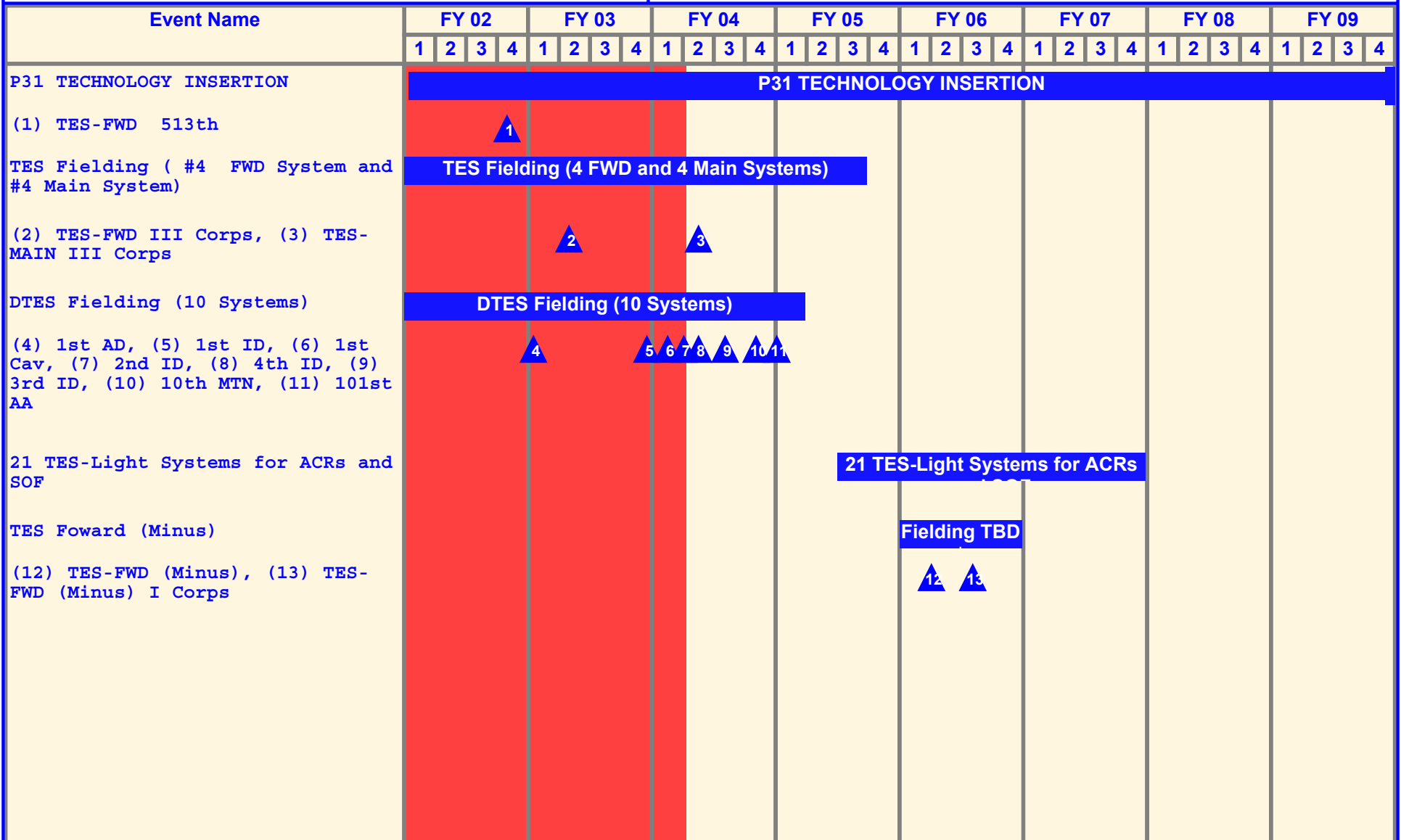
Schedule Profile (R4 Exhibit)

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BUDGET ACTIVITY
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0604766A - Tactical Exploitation System/DCGS
(TIARA)

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Schedule Detail (R4a Exhibit)						February 2004	
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604766A - Tactical Exploitation System/DCGS (TIARA)			PROJECT 957	
<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Complete development of TES FWD #4	2-3Q						
Complete development, upgrades, and fielding of DTES #s 2 - 10	3-4Q	2-4Q	1Q				
Complete development of MAIN #4		2Q					
Complete TES FWD (-) #1				1Q			
Complete TES FWD (-) #2				4Q			
Complete TES Lite Prototype			3Q				