

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY 7 - Operational system development	PE NUMBER AND TITLE 0203759A - Force XXI Battle Command, Brigade and Below (FBCB2 120							PROJECT 120		
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
120 Force XXI Battle Cmd, Brigade & Below (FBCB2)	18535	26083	32446	13666						90730

A. Mission Description and Budget Item Justification: The Force XXI Battle Command Brigade and Below (FBCB2) is a digital, battle command information system that provides integrated, on-the-move, timely, relevant battle command information to tactical combat, combat support and combat service support leaders and soldiers. FBCB2 incorporates state-of-the-art information technology to allow commanders to concentrate combat system effects rather than combat forces, enabling units to be both more survivable and more lethal. FBCB2 provides the capability to pass orders and graphics allowing the warfighter to visualize the commander's intent and scheme of maneuver. FBCB2 affords combat forces the capability to retain the tactical/operational initiatives under all mission, enemy, terrain, troops, and time available conditions to enable faster decisions, real/near-real-time communications and response. The system includes a Pentium based processor, display unit, keyboard and removable hard disk drive cartridge. FBCB2 supports situational awareness (blue and red force positions) and command and control down to the soldier/platform level across Battlefield Operating Systems (BOS) and echelons. FBCB2 as a key component of the Army Battle Command System (ABCS), completes the information flow process from brigade to platform and across platforms within the brigade task force and across brigade boundaries. FBCB2-Blue Force Tracking (BFT) is a part of the FBCB2 program, which built upon both the FBCB2 program and experience with the Enhanced Information System (EIS), also known as Balkan Digitization Initiative (BDI) deployed in the Balkans. An L-Band transceiver employing commercial satellite services is used in lieu of tactical, terrestrial radios. The FBCB2-BFT system is deployed in the Gulf region in support of Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) and has remained with those units in the Continental United States (CONUS) that have returned from OIF/OEF. FBCB2-BFT satisfies the operational needs of the warfighter by providing near real-time tracking capabilities for joint and coalition forces in the Central Command (CENTCOM) Area of Responsibility (AOR). FBCB2-BFT enhances effectiveness by providing automated tools to facilitate the battle command process. It enhances the ability for the soldiers to operate in an unpredictable and changing environment where units are Beyond Line Of Sight (BLOS) within the battle space and across the spectrum of conflict by using multiple commercial satellites, which send the FBCB2-BFT data to a central processing facility known as the FBCB2 Operations Center.

FY08 and FY09 funds continue execution of Chief of Staff of the Army Directives for Battle Command Architecture and Joint Requirements Oversight Council Memorandum (JROCM) efforts. Efforts include Type 1 Encryption, development of an L-Band antenna to meet data and accuracy requirements, security network architecture requirements, and interoperability between TI and L-Band based FBCB2 systems. Funds will be used to provide platform-level situational awareness and provide interoperability with ABCS System of Systems, Bradley, Abrams, Aviation, Stryker and support mandated Army/DoD protocol/system updates.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue to design, develop, fabricate and test a Type 1 Encryption Device (T1ED) to meet requirements for processing secret messages.	7261	3332	4720	
Continue test and evaluation efforts to support Army Software Blocking schedule.	2131	2438	8400	4000
PM FBCB2 Program Management	1944	2424	2500	1250
Continue development of FBCB2 Joint Capabilities Release (JCR) V1.0 to include joint (USMC), Common Battle Command Product Line (BCPL) initiatives and Cross Domain Solution (CDS) Netcentric services.	2718	5041	13966	8416

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Design, develop, fabricate and test prototype L-Band antennas to achieve data capacity and situation awareness accuracy requirements. Will utilize low cost INMARSAT and Broadband Global Access Network (BGAN) commercial satellite networks.	1481	11641	2360	
Comm Connectivity Improvements	3000	500	500	
Small Business Innovative Research/Small Business Technology Transfer Programs		707		
Total	18535	26083	32446	13666

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<u>B. Program Change Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	19913	26375	33835	14813
Current BES/President's Budget (FY 2008/2009)	304408	303491	325643	417911
Total Adjustments	284495	277116	291808	403098
Congressional Program Reductions		-100		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-1378	-192		
SBIR/STTR Transfer				
Adjustments to Budget Years			-1389	-1147

<u>C. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA - W61900	283307	159689	175975	125687	121707	90730	90572	71921	Continuing	Continuing
OPA - BS9736 (Spares)	3546	378	2831	6455					Continuing	Continuing
OMA - 432142	38294	30647	19901	19901					Continuing	Continuing

Comment:

D. Acquisition Strategy The FBCB2 development effort follows an evolutionary acquisition strategy to support Product Line Architecture, Army/Marine Corps convergence, Army Battle Command System (ABCS) interoperability and Army Software Blocking requirements. A Full Rate Production (FRP) decision review conducted by the Army Systems Acquisition Review Council (ASARC) in Aug 2004 and authorized FBCB2 program to enter into the Production and Deployment phase. Development efforts are executed via an Indefinite Delivery/Indefinite Quantity (ID/IQ) Cost Plus Award/Fixed Fee type contract. The current contract was awarded in Sep 2004.

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
7 - Operational system development			0203759A - Force XXI Battle Command, Brigade and Below (FBCB2 120)											
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Software/Systems Engineering	CPIF/CPAF	Northrup Grumman, CA	183210	2152	2Q	1460	1-2Q	3472	1-2Q	2020	1-2Q	Cont.	Cont.	
Hardware Development	FFP	Northrup Grumman, CA	27645	8742	2-3Q	14973	1-3Q	7080	1-2Q				58440	
Software Development	CPIF/CPAF	Northrup Grumman, CA	249212	3566	2Q	4081	1-2Q	10994	1-2Q	6396	1-2Q	Cont.	Cont.	
TACNAV	CPIF	TRW CA	1000										1000	
Systems Eng, Training and Log Development	CPAF	Lockheed Martin, NJ	11196										11196	
Systems Eng, Training and Log Development	Various	Various Contracts	1504										1504	
Subtotal:			473767	14460		20514		21546		8416		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
PM Office Support	N/A	CECOM, Ft. Monmouth	14268	750	1-4Q	900	1-4Q	927	1-4Q	956	1-4Q	Cont.	Cont.	
Matrix Support	MIPR	CECOM, Ft. Monmouth	4635	350	1-2Q	100	1-2Q	106	1-2Q	106	1-2Q	Cont.	Cont.	
Misc. Contracts Support	MIPR/PWD	CECOM, Ft. Monmouth	27599	844	1-2Q	1424	1-2Q	1467	1-2Q	188	1-2Q	Cont.	Cont.	
Subtotal:			46502	1944		2424		2500		1250		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CTSf	MIPR	CTSf	3274	34	1-2Q	65	1-3Q	100	1-4Q	75	1-4Q		3548	
Atec	MIPR	Atec	35655	1422	1-2Q	1030	1-3Q	6000	1-4Q	2500	1-4Q	Cont.	Cont.	
EPG	MIPR	EPG	19624	375	1-2Q	1000	1-3Q	1800	1-4Q	1000	1-4Q	Cont.	Cont.	

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CRTC	MIPR	CRTC	1040										1040	
Misc Contract Support			2969	300	1-2Q	343	1-3Q	500	1-4Q	425	1-4Q		4537	
Subtotal:			62562	2131		2438		8400		4000		Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Small Business Innovative Research/Small Business Technology Transfer Programs						707	1-4Q						707	
Subtotal:						707							707	

Remarks: Actual dollars received on funding authorization document in FY04 was 46,652.
 JROCM Development efforts are included in the Software/Systems Engineering and Software Development.

Project Total Cost:	582831	18535		26083		32446		13666		Cont.	Cont.
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Schedule Detail (R4a Exhibit)

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<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
System Development & Demonstration Phase	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q				
V6.4.4 Intra-Army Interoperability Certification (IAIC)	2Q - 3Q							
Product Line Object Architecture	1Q - 4Q	1Q - 4Q	1Q - 4Q					
JROCM 161-03: Army-Marine Corps Convergence.	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Quick Kill Op Eval	2Q							
Quick Kill Operational Deployment Decision	3Q							
JCR SSAT		4Q						
JCR IAIC			2Q - 3Q					
JCR Operational Evaluation			3Q - 4Q					
Full Rate Production Phase	1Q - 4Q	1Q - 2Q						