

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

**February 2008**

<b>BUDGET ACTIVITY</b> <b>7 - Operational system development</b>	<b>PE NUMBER AND TITLE</b> <b>0203759A - Force XXI Battle Command, Brigade and Below (FBCB2)</b>						<b>PROJECT</b> <b>120</b>		
COST (In Thousands)	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)	26068	32194	38418						96680

**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. 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 system provides a dual based capability consisting of both terrestrial (EPLRS) and satellite based (L-Band) systems. The system includes a Pentium based processor, display unit, keyboard, removable hard disk drive cartridge, and a platform specific installation kit. The satellite based system, more commonly known as Blue Force Tracking (BFT), includes an L-Band transceiver that employs commercial satellite services in lieu of tactical terrestrial radios. Currently over 20,000 systems have been fielded with approximately 15,000 systems in support of Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF).

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 security network architecture requirements, and interoperability between Tactical Internet 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.

<b><u>Accomplishments/Planned Program:</u></b>	<b><u>FY 2007</u></b>	<b><u>FY 2008</u></b>	<b><u>FY 2009</u></b>
Continue to design, develop, fabricate and test a Type 1 Encryption Device (T1ED) to meet requirements for processing secret messages.	3149	5664	
Continue test and evaluation efforts to support Army Software Blocking schedule.	1403	5259	4000
PM FBCB2 Program Management	2075	2566	3618
Continue development of FBCB2 Joint Capabilities Release (JCR) to include Army and Marine Corp Common Battle Command Product Line (BCPL) initiatives, communications connectivity, and high speed data networks capabilities.	7000	10116	8839
Design, develop, fabricate and test prototype L-Band antennas to achieve data capacity and situation awareness accuracy requirements. Develop and deliver an organic FBCB2 Blue Force Tracking (BFT) L-band key management capability for the Army and other DoD and coalition users of the FBCB2 BFT L-Band network.	12441	7688	
Initiate systems engineering design and development of Joint Battle Command-Platforms Software.			4000

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Initiate systems development efforts against current Combat Identification Capability gaps for accuracy/latency of Blue Position reporting, density of systems and joint coalition interoperability.			7461
Initiate hardware development for dismounted, tablet, and beacon capabilities.			3500
Develop and test cross domain security solution to permit unclassified users to operate systems on a Type 1 secured network. Provide interface to unclassified sensor networks and logistics data.			3000
Develop and test netcentric services appropriate for platforms. Integrate wideband terrestrial radio/hybrid network.			4000
Small Business Innovative Research/Small Business Technology Transfer Programs		901	
<b>Total</b>		<b>26068</b>	<b>32194</b>

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<u><b>B. Program Change Summary</b></u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	26083	32446	13666
Current BES/President's Budget (FY 2009)	26068	32194	38418
Total Adjustments	-15	-252	24752
Congressional Program Reductions		-252	
Congressional Rescissions	-15		
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
Adjustments to Budget Years			24752

Change Summary Explanation: Funding - FY09 increase provided to initiate development efforts for Joint Battle Command-Platforms (JBC-P) capabilities.

<u><b>C. Other Program Funding Summary</b></u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA - W61900	523472	248444	231651	197154	124513	100987	71299		1497520
OPA - BS9736 (Spares)	363	2811	5633						8807
OMA - 432142	14536	19901	19901						54338

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 authorized the 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 with a period of performance through Sept 2009. Follow on contract for development of JBC-P capabilities will be awarded based on full and open competition.

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
<b>7 - Operational system development</b>			<b>0203759A - Force XXI Battle Command, Brigade and Below (FBCB2)</b>							<b>120</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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	185362	1680	1-2Q	2428	1-2Q	6552	1-2Q	Cont.	Cont.	
Hardware Development	CPFF	Northrup Grumman, CA	36387	15590	1-3Q	13352	1-2Q	3500			68829	
Software Development	CPIF/CPAF	Northrup Grumman, CA	252778	5320	1-2Q	7688	1-2Q	20748	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:			488227	22590		23468		30800		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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	15018	345	1-4Q	670	1-4Q	874	1-4Q	Cont.	Cont.	
Matrix Support	MIPR	CECOM, Ft. Monmouth	4985	318	1-2Q	528	1-2Q	673	1-2Q	Cont.	Cont.	
Misc. Contracts Support	MIPR/PWD	CECOM, Ft. Monmouth	28443	1412	1-2Q	1368	1-2Q	2071	1-2Q	Cont.	Cont.	
Subtotal:			48446	2075		2566		3618		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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	3308		1-3Q		1-4Q	75	1-4Q		3383	
ATEC	MIPR	ATEC	37077	285	1-3Q	765	1-4Q	2500	1-4Q	Cont.	Cont.	
EPG	MIPR	EPG	19999	616	1-3Q	4494	1-4Q	1000	1-4Q	Cont.	Cont.	

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CRTC	MIPR	CRTC	1040							1040	
Misc Contract Support			3269	502	1-3Q		1-4Q	425	1-4Q		4196
Subtotal:			64693	1403		5259		4000		Cont.	Cont.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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						901	1-4Q				901	
Subtotal:						901					901	

<b>Project Total Cost:</b>			<b>601366</b>	<b>26068</b>		<b>32194</b>		<b>38418</b>		<b>Cont.</b>	<b>Cont.</b>	
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# Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY  
**7 - Operational system development**

PE NUMBER AND TITLE  
**0203759A - Force XXI Battle Command, Brigade and Below (FBCB2)**

PROJECT  
**120**

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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
<b>FBCB2</b>																												
Joint Capabilities Release (JCR)/ Product Line Architecture/ JROCM 161-03																												
(1) System/Segment Acceptance Testing (SSAT), (2)																												
Intra Army Interoperability Certification (IAIC),																												
Operational Evaluation																												
<b>JBC-P</b>																												
(3) Milestone B																												
(4) Contract Award																												
Development Phase																												



**Schedule Detail (R4a Exhibit)**

**February 2008**

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<u>Schedule Detail</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>
FBCB2	1Q - 4Q	1Q - 4Q	1Q - 4Q				
Joint Capabilities Release (JCR)/ Product Line Architecture/ JROCM 161-03	1Q - 4Q	1Q - 4Q	1Q - 4Q				
System/Segment Acceptance Testing (SSAT)		3Q					
			2Q				
Intra Army Interoperability Certification (IAIC)		2Q - 3Q					
			2Q - 3Q				
Operational Evaluation		4Q					
JBC-P			4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
Milestone B			2Q - 3Q				
Contract Award			3Q				
Development Phase			3Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q