ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)	February 2006

BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203759A - Force XXI Battle Command, Brigade and Below (FBCB2**	PROJECT **120**

COST (In Thousands)	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
120 Force XXI Battle Cmd, Brigade & Below (FBCB2)	43668	19913	26375	33835	14813	0	0	0	245905

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.

FY07 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 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. Efforts will drastically reduce initialization database requirements and provide for updates to over the air on FBCB2-BFT and FBCB2-Enhanced Position Location and Reporting System (EPLRS).

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Complete Army Battle Command System (ABCS) architecture and system of systems network engineering and integration efforts in support of v6.4 and Software Block Functionality	1041	0	0
Type I Encryption and NSA Endorsement	1959	6104	3687
Conducted v6.4 operation evaluation (FY05), Army software Block II evaluation (FY06), and JCR v1.0 testing (FY07).	1987	1925	3000
PM FBCB2 Program Management	3215	1924	2800
Develop/Maintain Joint Interoperability (USMC, Land Warrior/Dismount) and implement Coalition (UK) interoperability	10277	960	7386
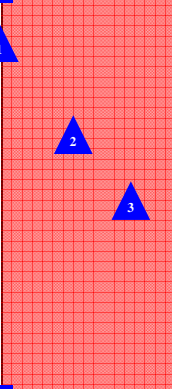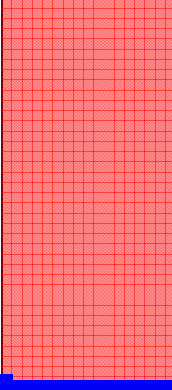
0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 1 of 7
212

Exhibit R-2
Budget Item Justification

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)				**February 2006**

BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203759A - Force XXI Battle Command, Brigade and Below (FBCB2**			PROJECT **120**
Common Software Product Line	4759	0		0
JROCM - USMC & SOCOM Common Solution Brigade & Below	20430	6000		2502
Interoperability-Transciever	0	0		7000
Comm Connectivity Improvements	0	3000		0
Total	43668	19913		26375

0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 2 of 7
213

Exhibit R-2
Budget Item Justification

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203759A - Force XXI Battle Command, Brigade and Below (FBCB2**	PROJECT **120**

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	22546	20201	10451
Current BES/President's Budget (FY 2007)	43668	19913	26375
Total Adjustments	21122	-288	15924
Congressional Program Reductions		-87	
Congressional Rescissions		-201	
Congressional Increases			
Reprogrammings	21122		
SBIR/STTR Transfer			
Adjustments to Budget Years			15924

C. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA - W61900	259179	255274	160060	129708	80270	73290	22757	0	980538
OPA - BS9736 (Spares)	3345	3549	380	2831	6455	0	0	0	16560
OMA - 432142	11319	11694	14394	19794	19793	0	0	0	76994

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.

0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 3 of 7
214

Exhibit R-2
Budget Item Justification

ARMY RDT&E COST ANALYSIS (R3)

February 2006

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 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
Software/Systems Engineering	CPIF/CPAF	Northrup Grumman, CA	168006	15204	1-2Q	6259	1-2Q	7775	1-2Q	Continue	Continue	0
Hardware Development	FFP	Northrup Grumman, CA	27645	0		0		0		0	27645	0
Software Development	CPIF/CPAF	Northrup Grumman, CA	238650	10562	1Q	9405		12050	1-2Q	Continue	Continue	0
TACNAV	CPIF	TRW CA	1000	0		0		0		0	1000	0
Systems Eng, Training and Log Development	CPAF	Lockheed Martin, NJ	0	11196	2Q	0		0		0	11196	0
Systems Eng, Training and Log Development	Various	Various Contracts	0	1504	2Q	0		0		0	1504	0
Subtotal:			435301	38466		15664		19825		Continue	Continue	0

II. Support Costs	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
PM Office Support	N/A	CECOM, Ft. Monmouth	13437	831	1-4Q	750	1-4Q	900	1-4Q	Continue	Continue	0
Matrix Support	MIPR	CECOM, Ft. Monmouth	4430	205	1-2Q	350	1-2Q	300	1-2Q	Continue	Continue	0
Misc. Contracts Support	MIPR/PWD	CECOM, Ft. Monmouth	25420	2179	1-2Q	824	1-2Q	1600	1-2Q	Continue	Continue	0
Subtotal:			43287	3215		1924		2800		Continue	Continue	0

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
CTSF	MIPR	CTSF	2323	951		0		0		0	3274	0
ATEC	MIPR	ATEC	35280	375	1-2Q	1500		650		Continue	Continue	0
EPG	MIPR	EPG	19444	180	1-2Q	375		3100		Continue	Continue	0
CRTC	MIPR	CRTC	1040	0		0		0		0	1040	0

0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 4 of 7
215

Exhibit R-3
ARMY RDT&E COST ANALYSIS

ARMY RDT&E COST ANALYSIS (R3)

February 2006

| BUDGET ACTIVITY
7 - Operational system development | | | PE NUMBER AND TITLE
0203759A - Force XXI Battle Command, Brigade and Below (FBCB2 | | | | | | | | | PROJECT
120 |

			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
Misc Contract Support			2488	481		450		0		0	0	0
Subtotal:			60575	1987		2325		3750		Continue	Continue	0

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
Subtotal:			0									

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:** | | | **539163** | **43668** | | **19913** | | **26375** | | **0** | **45659** | **0** |

0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 5 of 7
216

Exhibit R-3
ARMY RDT&E COST ANALYSIS

Schedule Profile (R4 Exhibit)

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	0203759A - Force XXI Battle Command, Brigade and Below (FBCB2	120

Event Name	FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
	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

System Development & Demonstration Phase — SDD

(1) Follow-On SE&I Contract Award — 1

(2) V6.4x Operational Evaluation — 2

(3) V6.4.4 System Segment Acceptance Test (SSAT) — 3

(4) V6.4.4 Intra-Army Interoperability Certification (IAIC) — 4

Product Line Object Architecture

JROCM 161-03: Army-Marine Corps Convergence.

(5) Quick Kill Op Eval — 5

(6) Quick Kill Operational Deployment Decision — 6

(7) JCR SSAT — 7

(8) JCR Operational Evaluation — 8

Field Common HW/SW

Full Rate Production Phase — FRP

0203759A
Force XXI Battle Cmd, Brigade & Below (FBCB2)

Item No. 162 Page 6 of 7
217

Exhibit R-4
Budget Item Justification

Schedule Detail (R4a Exhibit)

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0203759A - Force XXI Battle Command, Brigade and Below (FBCB2**	**120**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Follow-On SE&I Contract Award	1Q						
V6.4 Operational Evaluation	2Q						
V6.4.4 System Segment Acceptance Test (SSAT)	3Q						
V6.4.4 Intra-Army Interoperability Certification (IAIC)		2Q			1Q		
Quick Kill Op Eval		1Q					
Quick Kill Operational Deployment Decision		2Q					
JCR SSAT		3Q					
JCR Operational Evaluation			2Q				
Software Block 4				2Q			
Software Block 4 Op Eval					2Q		