ARMY TRANSFORMATION SUMMARY

B

TRANSFORMATION PROGRAMS ALIGNED WITH COGs AND JOCs										
	CRITICAL OPERATIONAL GOALS						JOINT OPERATING CONCEPTS			
	Project and Sustain U.S. .Forces	Protecting Critical Bases	Deny Enemy Sanctuary	Conduct Information Operations	Maintain Space Superiority	Leverage Information Technology	Major Combat Operations	Strategic Defense	Homeland Security	Stablity Operations
Future Combat Systems (FCS)	X						X	X	X	X
Stryker Armored Vehicle (SAV)	X						X	X	X	X
Comanche	X						X	X	X	X
Hypervelocity Missile Program	X						X			
Countermine Program	X						X			X
Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (JLENS)		X					X	X		
Medium Extended Air Defense System (MEADS)		X					X	X		
Theater High Altitude Air Defense System (THAAD)		X					X	X	X	
Mobile Tactical High Energy Laser (MTHEL)		X					X	X	X	
Tactical Unmanned Aerial Vehicle (TUAV)			X				X	X	X	X
Guided Multiple Launch Rocket System (GMLRS)			X				X			
Army Tactical Missile System (ATACMS)			X				X			
Excalibur, Advanced Artillery Munitions			X				X			
Aerial Common Sensor			X				X	X	X	X
Information Operations				X			X	X	X	X
Space Operations					X		X	X	X	X
Soldier Modernization Program						X	X			X
Warfighter Information Network-Tactical (WIN-T)						X	X	X		X
Joint Tactical Radio System (JTRS)						X	X	X	X	X
Network-Centric Information Warfare						X	X	X	X	X
Distributed Common Ground System-Army (DCGS-A)						X	X	X	X	X

Table B-1. Transformation Programs aligned with Critical Operational Goals

ARMY TRANSFORMATION SUMMARY

PB04 resources Army Transformation and supports the six COGs. The Army's PB04 funding for Transformation has been increased to $58.5B to support these goals, while additional resources have been identified in the PB05 submission. However, PB04 remains the program of record until PB05 is submitted to Congress.

FY04-09 ($M)	PB03	PB04	Increase	%Increase
PROJECT AND SUSTAIN POWER				
FCS	9,200	22,178	12,979	141%
Comanche	11,780	10,514	-1,265	-11%
Stryker	3,765	3,996	231	6%
Countermine	308	540	232	75%
Hypervelocity Missile	518	620	102	20%
Total	25,571	37,849	12,278	48%
PROTECTING CRITICAL BASES				
MTHEL	134	559	425	317%
MEADS	1,696	1,676	-20	-1%
JLENS	391	482	91	23%
THAAD*	0	0	0	0%
Total	2,221	2,716	496	22%
DENY ENEMY SANCTUARY				
TUAV/UAV	1,301	1,240	-60	-5%
GMLRS	561	1,981	1,420	253%
Excaliber	258	1,180	923	358%
ATACMS	1,970	688	-1,281	-65%
ACS	576	1,128	552	96%
Total	4,666	6,218	1,552	33%
CONDUCTING INFORMATION OPERATIONS	563	562	-1	0%
CONDUCT SPACE OPERATIONS	1,321	1,541	220	17%
LEVERAGE INFORMATION TECHNOLOGY				
WIN-T	736	1,041	305	41%
JTRS	1,150	1,709	559	49%
Soldier Modernization	1,816	1,998	183	10%
Network Centric InformationWarfare	1,393	1,672	279	20%
DCGS-A	320	627	308	96%
Total	5,416	7,048	1,632	30%
EXPERIMENTATION	2,215	2,589	373	17%
ARMY TRANSFORMATION TOTAL	41,972	58,522	16,550	39%

*THAAD has $6.9B in MDA Budget projected to transition to the Army in FY06

Table B-2. Critical Operational Goal Summary

The purpose of this section is to outline the Army's "clearly transformational" programs as they pertain to the six COGs. The programs in this annex are consistent with the OSD (PAE) FYDP definitions of what is clearly transformational.

Project and Sustain Power. While our enemies work to deny the Joint Force access to theaters of operation, the Army is working to assure access. The Army's foremost contribution to this goal is the ability to provide strategically responsive and dominant land forces.

The Future Combat Systems (FCS) is the Army's multifunctional, multimission, reconfigurable, system of systems designed to maximize joint interoperability, strategic transportability, and commonality of mission roles. During the PB03-PB04 cycle, the Army prepared for the Defense Acquisition Board's (DAB's) Milestone B decision in FY03, with production in FY06, the first unit equipped (FUE) in FY08, and an IOC by the end of this decade for the first UA. During preparation for Milestone B, Army leadership made several decisions, based on technology maturity, developmental schedule, and available funding, that shaped the changes between PB04-PB05. The outcome of these decisions resulted in a refined focus for the FCS program for PB05. These decisions and additional funding will be applied in the PB05 submission.

FCS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	399.9	771.4	1,786.2	2,033.3	2,081.0	2,128.0	9,199.7
PB04 Data	1,701.3	2,683.7	3,425.5	3,732.9	5,629.3	5,005.7	22,178.4
PB03/PB04 Delta	1,301.4	1,912.3	1,639.3	1,699.6	3,548.3	2,877.7	12,978.7
PB03 to PB04 % Growth	**325.5%**	**247.9%**	**91.8%**	**83.6%**	**170.5%**	**135.2%**	**141.1%**

Table B-3. Future Combat Systems Program Summary

The **Comanche** program is the Army's armed reconnaissance helicopter and light attack weapon system of the future and the centerpiece of the Aviation Modernization Plan (AMP). Comanche will conduct three core missions (reconnaissance, close combat, and mobile strike) as an integral part of the air-ground maneuver team and will also support a fourth mission, vertical maneuver. These missions are based on distributed operations that rely on the commander's ability to attain comprehensive situational understanding of the enemy's disposition. Comanche therefore is an integrator, a sensor, and a shooter. The Army has fully funded Comanche in accordance with the DAB-approved program. Total funding for the Comanche program decreased for PB04 based on the DAB-approved program restructure and OSD-directed Cost Analysis Improvement Group (CAIG) cost estimate.

Comanche ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	990.09	1,413.7	1,486.5	2,572.6	2,630.0	2,686.0	11,779.7
PB04 Data	1,080.7	1,181.6	1,428.5	1,962.8	2,260.4	2,600.4	10,514.2
PB03/PB04 Delta	89.8	-232.1	-58.0	-609.9	-369.6	-85.6	-1,265.5
PB03 to PB04 % Growth	**9.1%**	**-16.4%**	**-3.9%**	**-23.7%**	**-14.1%**	**-3.2%**	**-10.7%**

Table B-4. Comanche Program Summary

The **Stryker** program is the primary combat and combat support platform for the SBCT and fulfills an immediate requirement for a strategically deployable, combat ready platform. This family of vehicles stresses performance and commonality that will reduce the logistics footprint and minimize sustainment costs. The Army continues to fully fund the procurement of six SBCTs.

Stryker ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	1,038.9	847.8	780.4	831.9	97.7	168.5	3,765.2
PB04 Data	1,016.4	1,022.2	911.1	780.0	97.7	168.5	3,995.9
PB03/PB04 Delta	-22.5	174.4	130.7	-51.9	0.0	0.0	230.7
PB03 to PB04 % Growth	**-2.2%**	**20.6%**	**16.7%**	**-6.2%**	**0.1%**	**0.0%**	**6.1%**

Table B-5. Stryker Program Summary

The **Countermine** program will provide assured and rapid surveillance, reconnaissance, detection, and neutralization of mines. The Ground Standoff Mine Detection System (GSTAMIDS) provides a near-term capability to execute the on-route countermine mission while the Army continues to develop Future Force capabilities. Other systems include the Handheld Standoff Minefield Detection System (HSTAMID), RDT&E for mine detection/neutralization and countermine advanced development and a robotic combat support system.

Countermine ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	59.4	45.4	50.5	47.5	52.0	53.0	307.9
PB04 Data	64.9	53.8	65.7	72.6	130.5	152.7	540.2
PB03/PB04 Delta	5.5	8.4	15.1	25.1	78.5	99.7	232.3
PB03 to PB04 % Growth	**9.2%**	**18.5%**	**30.0%**	**52.9%**	**150.9%**	**188.1%**	**75.4%**

Table B-6. Countermine Program Summary

The **Hypervelocity Missile** program is developing missiles that are less than four feet long and weigh less than fifty pounds. This revolutionary development will allow for a lighter, more lethal force. The Army is leveraging miniaturized guidance and control actuation technology, high-fidelity visual digital simulation, advanced composite motor and structure technology, fire control, and insensitive—nondetonable propulsion technology.

Hypervelocity Missile($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	151.7	124.0	71.4	56.1	57.0	58.0	518.3
PB04 Data	136.3	125.8	107.7	86.5	80.0	83.5	619.9
PB03/PB04 Delta	-15.4	1.8	36.2	30.4	23.0	25.5	101.6
PB03 to PB04 % Growth	**-10.2%**	**1.5%**	**50.7%**	**54.2%**	**40.4%**	**44.0%**	**19.6%**

Table B-7. Hypervelocity Missile Program Summary

Protect Critical Bases. The Army protects the homeland, allies, and the Joint Force by providing land-based air and missile defense and CBRNE defense.

The **Mobile Tactical High Energy Laser** (MTHEL) is a mobile, ground-based directed energy weapon system based upon laser technology. This high-energy laser weapon system uses proven laser beam generation technologies, beam-pointing technologies, and existing sensors and communication networks to provide a new, active defense capability in counter-air missions. The MTHEL is designed to demonstrate, test, and field the first modular directed energy system capable of engaging and destroying rockets, artillery, and mortar threats. This is a cooperative (50 percent funding) effort between Israel and the United States. The Army has increased funding in this program to $558.6M.

MTHEL ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	39.8	39.7	24.8	9.9	10.0	10.0	134.1
PB04 Data	39.1	39.0	24.3	59.4	141.1	255.7	558.6
PB03/PB04 Delta	-0.7	-0.7	-0.5	49.5	131.1	245.7	424.5
PB03 to PB04 % Growth	**-1.7%**	**-1.7%**	**-1.9%**	**501.4%**	**1311.2%**	**2456.9%**	**316.6%**

Table B-8. Mobile Tactical High Energy Laser (MTHEL) Program Summary

In April 2003, the Defense Acquisition Board directed that the Patriot and **Medium Extended Air Defense Systems (MEADS)** combine into one program. MEADS is the replacement for the Patriot and will provide a robust 360-degree defense against SRBMs, cruise missiles, and air-breathing threats. The Army is working toward a March 2004 DAB that will define the requirements of a combined international program and move the current risk reduction effort into design and demonstration.

MEADS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	280.6	272.1	277.1	281.9	289.0	295.0	1,695.7
PB04 Data	276.3	267.3	271.7	276.2	289.5	295.2	1,676.1
PB03/PB04 Delta	-4.3	-4.8	-5.4	-5.7	0.5	0.2	-19.6
PB03 to PB04 % Growth	**-1.5%**	**-1.8%**	**-2.0%**	**-2.0%**	**0.2%**	**0.1%**	**-1.2%**

Table B-9. Medium Air Defense Systems (MEADS) Program Summary

The **Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)** is an elevated sensor system that detects, tracks, identifies, and classifies very low-flying, small signature Land Attack Cruise Missiles (LACMs). It provides surveillance to a range of 280 km and fire control to a distance of 150 km. JLENS contributes to the SIAP by integrating multiple OTH C3 networks.

JLENS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	56.5	57.4	68.1	67.9	70.0	71.0	390.9
PB04 Data	57.5	56.4	66.8	76.3	78.5	146.0	481.6
PB03/PB04 Delta	1.0	-1.0	-1.3	8.4	8.5	75.0	90.6
PB03 to PB04 % Growth	**1.8%**	**-1.7%**	**-1.9%**	**12.4%**	**12.1%**	**105.6%**	**23.2%**

Table B-10. Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (JLENS)
Program Summary

The **Theater High Altitude Air Defense System (THAAD)** is designed to intercept short- and medium-range missile threats that will employ sophisticated warheads. THAAD is projected to transition from the MDA to the Army in FY06. The total requirement for procurement of THAAD is estimated at $6.9B, and the Army expects that this funding will be transferred to it when the program transitions in 2006. The Army currently has no funding allocated for THAAD procurement.

Deny the Enemy Sanctuary. The presence of Future Force leaders and Soldiers, dispersed across the battlespace, yet operationally integrated through an information network, provides the JFC with situational dominance in applying lethal and nonlethal effects with unprecedented precision, even in urban terrain.

Unmanned Aerial Vehicles (UAVs) consist of TUAV, Hunter UAV, extended range/multipurpose UAV and advanced payloads. The TUAV provides RSTA to the tactical maneuver commander. Currently, each Shadow 200 TUAV system consists of four Shadow 200 air vehicles, six HMMWVs, two ground control stations (GCS), one portable GCS, and four remote video terminals that can provide near real time video to commanders on the ground. The Shadow 200 TUAVs currently have an onboard EO/IR sensor payload. Objective payloads may include, but are not limited to advanced EO/IR, all-weather SAR and MTI, and SIGINT sensors. The threshold range is 50 km with and objective range of 200 km and an on-station endurance of four hours. The threshold payload is 60 pounds with an objective capacity of 100 pounds. Hunter UAV is the interim ER/MP UAV. It is the commander's RSTA and battle damage assessment asset providing ground forces with near real time imagery via EO/IR intelligence at ranges up to 200 km. This capability will be sustained until ER/MP is fielded for the UE. The ER/MP UAV is the Future Force RSTA and command, control, communications and intelligence (C3I) system, which will support the UE. Advanced payloads will provide a family of payloads to support RSTA for all commanders at all levels. Advanced payloads are planned to complement and enhance the capabilities of current EO/IR UAV sensors.

UAV ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	190.3	145.5	260.2	254.7	223.0	227.0	1,300.8
PB04 Data	179.6	163.6	171.9	193.9	247.2	284.0	1,240.4
PB03/PB04 Delta	-10.7	18.1	-88.3	-60.8	24.2	57.0	-60.4
PB03 to PB04 % Growth	**-5.6%**	**12.4%**	**-33.9%**	**-23.9%**	**10.9%**	**25.1%**	**-4.6%**

Table B-11. Unmanned Aerial Vehicle (UAV) Program Summary

The **Guided Multiple Launch Rocket System (GMLRS)** is an international cooperation effort to produce a common product to achieve interoperability, while sharing and minimizing costs and risks. This program provides counterfire, suppression of enemy air defense (SEAD), and time-sensitive destruction of multiple types of targets. The improved accuracy of GMLRS results in a significant reduction in the quantity of rockets required to defeat the target (as much as a six-fold decrease at extended ranges). Other benefits include reduction in the logistics burden (transportation of rockets), reduced chances of collateral damage and fratricide, and reduced mission times (resulting in increased system survivability). This rocket will replace the aging M26 missile whose shelf life will expire in FY14. It is fully funded at $2B.

GMLRS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	85.1	103.2	99.4	89.4	91.0	93.0	561.1
PB04 Data	163.3	208.5	256.1	283.0	498.3	571.7	1,980.9
PB03/PB04 Delta	78.2	105.3	156.7	193.7	407.3	478.7	1,419.9
PB03 to PB04 % Growth	**91.9%**	**102.1%**	**157.7%**	**216.7%**	**447.6%**	**514.7%**	**253.1%**

Table B-12. Guided Multiple Launch Rocket System (GMLRS) Program Summary

The **Excalibur** program provides the maneuver force with an improved 155mm artillery projectile. This enhancement enables all-weather, day-and-night fire support through a precision-guided, extended-range, accuracy-enhancing, collateral-damage reducing, more lethal family of 155mm artillery projectiles. The unitary warhead will be used against various personnel, equipment, and building targets in urban or complex terrain. The program's requirements reflect a blocked strategy that will provide an initial capability to the LW155 Howitzers fielded to the Stryker Brigades.

Excalibur ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	84.2	56.1	28.4	29.0	30.0	30.0	257.7
PB04 Data	134.0	143.4	163.8	172.2	245.7	321.1	1,180.3
PB03/PB04 Delta	49.8	87.3	135.5	143.2	215.7	291.1	922.6
PB03 to PB04 % Growth	**59.1%**	**155.7%**	**477.4%**	**493.4%**	**719.1%**	**970.4%**	**358.0%**

Table B-13. Excalibur Program Summary

The **Army Tactical Missile System (ATACMS)** is a family of long-range, all weather, day-and-night, tactical missiles that provides the JFC with a precision engagement capability at ranges from 35 to 300 km. The family contains a range of munitions, each fired from an MLRS or HIMARS.

ATACMS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	332.6	288.3	306.7	340.1	347.0	355.0	1,969.6
PB04 Data	105.8	130.3	141.2	133.8	135.1	42.0	688.2
PB03/PB04 Delta	-226.8	-158.0	-165.5	-206.3	-211.9	-313.0	-1,281.5
PB03 to PB04 % Growth	**-68.2%**	**-54.8%**	**-54.0%**	**-60.7%**	**-61.1%**	**-88.2%**	**-65.1%**

Table B-14. Army Tactical Missile System (ATACMS) Program Summary

The **Aerial Common Sensor (ACS)** is the Army-led, Joint airborne ISR system that meets both the Army's and Navy's requirements for a worldwide, self-deployable asset that can begin operations immediately upon arrival into theater. The ACS will operate alongside the Future Force in the JOA battlespace utilizing its multi-intelligence precision targeting capability. Using DCGS-A for the ground station component ensures the relevance of ACS throughout the entire spectrum of operations. ACS, via robust sensor-to-shooter and reachback links, will provide commanders at every echelon with the tailored, multisensor intelligence throughout a nonlinear framework and noncontiguous battlespace. Onboard battle command and communications relay packages will ensure uninterrupted, joint integrated C4I. Through a modular, open architecture, onboard COMINT, ELINT, imagery intelligence (IMINT), MASINT sensors, incorporating EO/IR, SAR, MTI, multi- and hyperspectral imagery sensors, as well as onboard operators, will ensure that sensor/processing technology enhancements maintain pace with evolving threats via software (vice hardware) solutions.

ACS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	83.5	93.4	80.4	104.2	106.0	109.0	576.5
PB04 Data	108.6	146.7	144.0	238.5	239.6	250.9	1,128.3
PB03/PB04 Delta	25.1	53.4	63.6	134.3	133.6	141.9	551.9
PB03 to PB04 % Growth	**30.0%**	**57.1%**	**79.2%**	**128.9%**	**126.0%**	**130.2%**	**95.7%**

Table B-15. Aerial Common Sensor (ACS) Program Summary

Conduct Information Operations. The Army's principal contribution to this critical goal is to provide adaptive Soldiers and leaders capable of rapidly assimilating and mastering evolving patterns of information. The Army effectively supports the Joint Force along three broad axes: 1) providing full-spectrum IO planning and execution embedded in dedicated force structure; 2) enabling decision superiority through real-time predictive understanding; and 3) embedding in the Future Force autonomous, self-synchronizing automated capabilities to frustrate an adversary's attack.

Information Operations (IO). Transformation funds support a transformed IO force structure and transformational IO technology that integrates traditionally separate military activities and capabilities, enabling success across the full range of operations. An emerging cadre of IO experts provides previously unrealized capabilities—synchronizing doctrinal and technological advancements in the areas of computer network operations, PSYOPS, electronic warfare, military deception, and operations security (OPSEC)—to create and preserve opportunities for decisive operations.

This cadre provides the Joint Force and future land component UE with adaptive Soldiers and leaders capable of rapidly assimilating and mastering the changing patterns of IO. The Army has programmed $562.1M for training support and operations as well as RC manpower.

Info Operations ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	91.3	89.7	92.6	96.0	96.5	97.0	563.2
PB04 Data	90.4	88.9	91.3	94.6	97.2	99.7	562.1
PB03/PB04 Delta	-0.9	-0.9	-1.3	-1.4	0.7	2.7	-1.0
PB03 to PB04 % Growth	**-1.0%**	**-1.0%**	**-1.4%**	**-1.4%**	**0.7%**	**2.8%**	**-0.2%**

Table B-16. Information Operations (IO) Program Summary

Space Systems and Infrastructure. While not the DOD proponent for space, the Army is, and will remain, the largest user among the Services of space-based capabilities. The Army has already begun to leverage many of its space systems in the Current Force. The Army's space systems include the following efforts. The GPS upgrade is a key Transformation enabler, with central enhancements for Future Force capabilities including blue force tracking, UAV, UGV, and precision weapon navigation. Ground terminals and control equipment for SATCOM systems provide critical connectivity for a rapidly deployable, information-enabled Army, and will work with both the current DSCS satellites as well as the new generation of wideband gapfiller satellites. The Joint Tactical Ground Station (JTAGS) upgrade will exploit the next generation infrared sensor, using the Multi-Mission Mobile Processor (M3P), an essential element of the Future Force missile defense. The tactical intelligence and exploitation effort is central to the lifeblood of the future force, information exploitation. High Energy Laser Technology weapons development, beyond the current MTHEL, will allow precision attack on individual components of weapon systems. Space Technology Integration (STI) programs are developing the next generation of overhead sensors supporting the Future Force's ISR capabilities, exploiting spectral imaging to ensure information dominance.

Space ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	223.7	234.6	220.5	214.1	214.1	214.1	1,321.1
PB04 Data	256.1	281.1	250.6	250.9	251.9	250.0	1,540.6
PB03/PB04 Delta	32.5	46.5	30.1	36.8	37.8	35.9	219.6
PB03 to PB04 % Growth	**14.5%**	**19.8%**	**13.7%**	**17.2%**	**17.6%**	**16.8%**	**16.6%**

Table B-17. Space Systems Program Summary

Leverage Information Technology. Future Force units will see first by detecting, identifying, and tracking the individual components of enemy units. They will employ advanced technologies coupled with a ubiquitous array of networked ground, air and space sensors to offer the commander an unprecedented picture of the battlefield through the Common Relevant Operational Picture (CROP).

The **Warfighter Information Network-Tactical (WIN-T)** is the key enabler to execute the network-centric warfare capability of the Army's Future Force. WIN-T is the Future Force's new-

start tactical digital communications system that will provide advanced commercial-based networking capabilities to the warfighter. WIN-T will replace current Army Mobile Subscriber Equipment (MSE) and Tri-Services Tactical Communications (TRI-TAC) systems, which are based on 1970s technology. The Defense Acquisition Executive (DAE) approved the Army's request for a Block I Milestone B decision on 6 August 2003. Additional funding will be applied in the PB05 submission.

WIN-T ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	43.9	123.5	172.6	129.4	132.0	135.0	736.5
PB04 Data	85.5	68.5	175.6	128.4	277.9	305.4	1,041.3
PB03/PB04 Delta	41.6	-55.1	2.9	-1.0	145.9	170.4	304.8
PB03 to PB04 % Growth	94.8%	-44.6%	1.7%	-0.8%	110.5%	126.2%	41.4%

Table B-18. Warfighter Information Network-Tactical (WIN-T) Program Summary

The **Joint Tactical Radio System (JTRS)** is a communications system for all DOD components—not a one-size-fits-all system; rather, it is a family of systems that are interoperable, affordable, and scaleable. It provides software-programmable, multiband/multimode, multichannel, modular, networked communications for simultaneous voice, data, and video and the data backbone for the tactical Internet.

JTRS ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	207.4	204.2	211.8	172.0	176.0	179.0	1,150.5
PB04 Data	393.2	419.3	309.3	248.1	180.1	159.3	1,709.3
PB03/PB04 Delta	185.8	215.1	97.5	76.1	4.1	-19.7	558.8
PB03 to PB04 % Growth	89.6%	105.3%	46.0%	44.2%	2.3%	-11.0%	48.6%

Table B-19. Joint Tactical Radio System (JTRS) Program Summary

The **Soldier Modernization** program provides mission-enhancing capabilities and life support for all Soldiers. Included in this program is Land Warrior, which is the first program to integrate the infantry Soldier's combat capabilities into a warfighting system. It increases the Soldier's mobility, lethality, survivability, and tactical awareness through the integration of lasers, thermals, aiming devices, communication links, navigation systems, and video display.

Soldier Mod ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	265.2	283.5	310.4	311.7	319.0	326.0	1,815.9
PB04 Data	263.8	284.8	311.6	425.9	355.2	357.2	1,998.5
PB03/PB04 Delta	-1.5	1.3	1.2	114.1	36.2	31.2	182.6
PB03 to PB04 % Growth	-0.6%	0.4%	0.4%	36.6%	11.4%	9.6%	10.1%

Table B-20. Soldier Modernization Program Summary

Network-centric Information Warfare requires systems that support the integrity, availability, authenticity, confidentiality, and nonrepudiation of information. The Army has several information assurance programs such as the Information Systems Security Program (ISSP), Information Dominance Center, Land Information Warfare Activity (LIWA), Global Network Monitoring, and Army Electronic Commerce. Together, these programs enhance the sharing of information among geographically distributed forces, sensors, decision makers, and shooters. The Army continued its commitment to funding these programs at $1.6B.

Net Centric Warefare ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	221.6	225.7	231.3	252.5	228.0	234.0	1,393.0
PB04 Data	313.9	308.2	272.4	259.3	256.0	261.7	1,671.6
PB03/PB04 Delta	92.3	82.5	41.1	6.8	28.0	27.7	278.5
PB03 to PB04 % Growth	**41.7%**	**36.6%**	**17.8%**	**2.7%**	**12.3%**	**11.9%**	**20.0%**

Table B-21. Network-centric Information Warfare Program Summary

The **Distributed Common Ground System-Army (DCGS-A)** is a family of systems and an integral component of the Army's ISR networking strategy. DCGS-A will migrate capabilities of disparate ISR systems into a joint common and interoperable, multi-intelligence architecture to improve the ground commander's ability to react within the enemy's decision cycle. DCGS-A software/hardware used throughout the Army and joint environment will task, process, exploit, and disseminate Army, joint, national, and coalition ISR sensor data and information in support of Future Force and Joint Task Force operations. Fixed and mobile DCGS-A transparently operates with embedded DCGS-A software applications within the FCS while operating in a secure collaborative, networked environment. DCGS-A provides real-time sensor-to-commander, sensor-to-shooter, and sensor-to-analyst information tailored to mission, task, and purpose of the recipient.

DCGS-A ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	18.7	18.5	46.5	78.7	78.7	78.7	319.8
PB04 Data	35.8	53.6	99.2	138.0	147.8	152.9	627.3
PB03/PB04 Delta	17.1	35.1	52.7	59.3	69.1	74.2	307.5
PB03 to PB04 % Growth	**91.4%**	**189.7%**	**113.3%**	**75.3%**	**87.8%**	**94.3%**	**96.2%**

Table B-22. Distributed Common Ground System-Army (DCGS-A) Program Summary

Experimentation and Simulation. Although not critical operational goals, experimentation and simulation are considered transformational by OSD(PAE) and are counted in transformation programmatics. Army experiments, demonstrations and simulations provide critical insights for the rapid development and fielding of new systems and capabilities. These activities provide valuable input to transforming the way the Army organizes, equips, trains, and fights. Advanced model

development and simulation of sensors, digitization, and other critical technologies significantly increase the reliability of the data and information on which key program funding and development decisions are made and open the door to accelerated procurement and fielding of new systems. Modeling, simulation, and experimentation are shaping Future Force requirements and capabilities, while robust joint live experimentation is critical to validating and refining equipment and technological solutions. Included in these Army experiments are battle labs and participation in the Joint Experimentation Campaign Plan—Millennium Challenge.

Experimentation ($M)	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09
PB03 Data	380.0	378.0	417.9	426.5	303.0	310.0	2,215.4
PB04 Data	352.8	361.4	438.5	450.0	490.9	495.1	2,588.8
PB03/PB04 Delta	-27.2	-16.6	20.7	23.6	187.9	185.1	373.4
PB03 to PB04 % Growth	**-7.2%**	**-4.4%**	**4.9%**	**5.5%**	**62.0%**	**59.7%**	**16.9%**

Table B-23. Experimentation and Simulation Program Summary