

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604601A - Infantry Support Weapons							
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
Total Program Element (PE) Cost	33697	53257	31748	48644	33238	41502	33142	0	302572
033 ADV CREW SVC WPN	33697	0	0	0	0	0	0	0	61041
S58 SOLDIER ENHANCEMENT PROGRAM	0	12618	15649	19433	15994	17128	12430	0	93252
S59 SOLDIER SUPPORT EQUIPMENT - ED	0	292	308	308	307	642	642	0	2499
S60 CLOTHING & EQUIPMENT	0	7805	9222	9466	9387	5998	6101	0	47979
S61 ACIS ENGINEERING DEVELOPMENT	0	2216	2326	2562	2662	2751	2852	0	15369
S62 OBJECTIVE INDIVIDUAL COMBAT WEAPON	0	19839	1814	2758	0	0	0	0	24411
S63 SMALL ARMS IMPROVEMENT	0	8121	2429	14117	4888	14983	11117	0	55655
S64 COMMON REMOTELY OPERATED WPN SYS (CROWS)	0	2366	0	0	0	0	0	0	2366

A. Mission Description and Budget Item Justification: This program element for System Development and Demonstration (SDD) manages the Soldier as a system, with the goal of increasing Soldiers' combat effectiveness, increasing survivability, and improving the Soldiers' quality of life. It develops and tests prototypes of weapons, clothing, equipment, and other items useful to support the Soldier. This program element restructures/consolidates the following program elements and associated projects: 0604713 (Project D668 Soldier Enhancement Program, Project DC40 Soldier Support Equipment, and Project DL40 Clothing and Equipment); 0604801 (Project DC45 Aircrew Integrated Systems Engineering Development); and, 0604802 (Project D134 Objective Individual Combat Weapon, Project DAS1 Small Arms Improvement, and Project DAS6 Common Remotely Operated Weapon System (CROWS) and CROWS Lightning. Consolidating common program elements and projects into one program element streamlines the management and efficiency of developing and testing infantry support weapons and associated equipment.

Project 033 (Advanced Crew Served Weapon) develops the 25mm XM-307 Advanced Crew Served Weapon machine gun, which enables the Soldier to effectively suppress and incapacitate exposed and defilade personnel targets out to 2000 meters using airbursting, fragmenting, or thermobaric ammunition. Starting in FY06 and continuing through FY09, this program will be funded directly from PE 0604645 to support the Future Combat Systems (FCS) Unit of Action requirement for a mounted version of the XM-307 machine gun.

Project S58 (Soldier Enhancement Program) supports accelerated integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids.

Project S59 (Soldier Support Equipment) supports system development and prototyping of critical Soldier support systems and other combat service support equipment that will improve unit sustainability and combat effectiveness.

Project S60 (Clothing and Equipment) supports pre-production development of state-of-the-art individual clothing and equipment to improve the survivability, mobility and

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sustainment affecting the quality of life of the individual Soldier.

Project S61 (Aircrew Integrated Systems) provides System Development programs with improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness and facilitates full-spectrum dominance of the Army aircraft including the AH-64 Apache/Longbow, CH-47 Chinook, UH/HH-60 Blackhawk, Light Utility Helicopter, and Armed Reconnaissance Helicopter.

Project S62 (Objective Individual Combat Weapon) funds will be applied to continue System Development and Demonstration (SDD) of the XM-25 Air Burst Weapon System. The XM25 is the air burst portion of the XM-29 Integrated Air Burst Weapon. The XM-25 dramatically increases Soldier lethality, survivability, and standoff capability when engaged in combat operations.

Project S63 (Small Arms Improvements) demonstrates engineering development models or integrated commercial items designed to enhance lethality, target acquisition, fire control, training effectiveness, and reliability for small arms weapon systems and ammunition.

Project S64 (CROWS Lightning) funds will be applied to continue integrating a lightweight weapon station including fire control, sensors and control grip onto light and/or medium tactical vehicles to obtain a safety release for operational assessment in Iraq. This capability will enhance the Soldiers survivability, lethality and situational awareness.

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	FY 2005	FY 2006	FY 2007
<u>B. Program Change Summary</u>			
Previous President's Budget (FY 2006)	33712	34627	31265
Current BES/President's Budget (FY 2007)	33697	53257	31748
Total Adjustments	-15	18630	483
Congressional program reductions		-233	
Congressional rescissions		-537	
Congressional increases		19400	
Reprogrammings	-15		
SBIR/STTR Transfer			
Adjustments to Budget Years			483

FY06 Congressional increases include the following:

- 1) \$15.0M for the Objective Individual Combat Weapon (\$10.0M for Increment 1 and \$5.0M for Increment 2) in Project S62;
- 2) \$1.0M for Type Classification of Ammunition (5.56mm, 7.62mm, and .50 Cal) in Project S63;
- 3) \$1.0M for Polymer 5.56mm Ammunition development in Project S63;
- 4) \$2.4M for the Common Remotely Operated Weapon Station - Lightning (CROWS Lightning) in Project S64.

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BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S58	
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
S58 SOLDIER ENHANCEMENT PROGRAM	0	12618	15649	19433	15994	17128	12430	0	93252

A. Mission Description and Budget Item Justification: This program supports accelerated integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids. Soldiers are managed in three categories: dismounted Soldiers, combat crews (air and ground), and other Soldiers. Projects are generally completed in three years or less.

Funds for prior year efforts were funded under PE 0604713A (Project 668 - Soldier Enhancement Program).

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY06-07: Current Plan includes evaluation and procurement of prototypes and/or test for the following Soldier Equipment Items: System of Flashlights, Fuel Handlers Overalls, Advanced Sniper Accessory Kit, Parachute Electronic Activation Device, Improved Water Purification device, Sapper Pack, and Sapper Leader Pack.	0	4098	5310
FY06-07: Current Plan includes evaluation and procurement of prototypes and/or test for the following Soldier Weapons Items: combat Mission Capability Kit (CCMCK), Semi-Auto Sniper System (SASS), close Quarters Battle Kit (CQB) , Modular accessory Shotgun System (MASS), 12 GA Non-Lethal, Family of Suppressors, Grenade Launcher Module (GLM), XM 104 Non-Lethal Grenade, Joint Combat Pistol, and Advance Sniper Accessory Kit (ASAK).	0	2769	2338
FY06-FY07: Continue in-house engineering support services, conduct technical evaluations and program reviews.	0	2640	2752
FY06-FY07: Initiate market surveys and/or evaluations on new items to commence development and demonstration. New items started will continue evaluation/procurement of new prototypes.	0	1107	2942
FY06-FY07: Current Plan includes evaluation and procurement of prototypes and/or test for Soldier equipment and Lethality programs that will be approved in a SEP Review in Feb 2006: 12 GA Breaching Cartridge, Cool Knit T-Shirt, Inflatable Life Vest, Laser Pointer, Strap Cutter, Video Tactical Surveillance System, Mini-Thermal, Short Sleeve Shirt & Boxers, Long Underwear, Balaclava, Family of Edged Weapons.	0	2004	2307
Total	0	12618	15649

<u>B. Other Program Funding Summary</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, MA68000, Soldier Enhancement	7241	4745	9298	10690	3463	7462	5541	CONT	CONT
OPA2, BA5300, Soldier Enhancement	6588	5925	9933	10192	6410	7210	5188	CONT	CONT
WTCV, GC0076, Small Arms (SEP)	23100	5178	2750	5424	1261	5177	4197	CONT	CONT
WTCV, GZ1290, Squad Automatic Wpn (Mods)	19685	7553	5253	9361	4153	5090	3150	CONT	CONT

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BUDGET ACTIVITY	PE NUMBER AND TITLE							PROJECT	
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WTCV, GZ2800, M16 Rifle Mods	20476	11533	1012	3900	1017	3563	3558	CONT	CONT
WTCV, GB3007, M4 Carbine Mods	87914	89637	30871	13696	6081	13432	9441	CONT	CONT
WTCV, GO1500, Sniper Rifle	13452	10527	8458	417	225	231	244	CONT	CONT
WTCV, GC0925, Mods	8315	5077	1700	2791	497	3067	2113	CONT	CONT
PAA, F47500, 7.62mm AP	6508	4833	5154	8424	8736	5900	0	0	39555
PAA, F47600, 5.65mm AP	4567	6727	7283	11813	12187	8264	0	0	50841
OMA, 121017, Central Funding & Fielding	146876	150897	167266	112788	96795	98513	50068	CONT	CONT

C. Acquisition Strategy The Soldier Enhancement Program (SEP) focuses on developmental initiatives and integration efforts that lend themselves to accelerated acquisition and fielding in the near term (within three years). New SEP candidates are reviewed and approved annually. SEP items are procured from multiple appropriations, i.e., OMA, OPA, WTCV, and PAA, contracts, vendors to include COTS.

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BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604601A - Infantry Support Weapons							PROJECT S58		
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
Various	Various	TBD	0	0		4290	1-2Q	5008	1-2Q	0	9298	0
Subtotal:			0	0		4290		5008		0	9298	0

Remarks: Candidates for the Soldier Enhancement Program are received, reviewed, and approved annually. Contractual efforts are focused on procuring prototypes for testing. Funding for PE 0604713A, Project 668 transitions to PE 0604601A Project S58 beginning in FY06.

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
Various	Various	TBD	0	0		3091	1-4Q	4300	1-4Q	0	7391	0
Subtotal:			0	0		3091		4300		0	7391	0

Remarks: Support costs vary annually depending on the type of items that are being evaluated. Research, Development, and Engineering Centers support to evaluate these items also varies annually depending on the number and types of items. Funding for PE 0604713A, Project 668 transitions to PE 0604601A Project S58 in FY06.

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
Various	Various		0	0		2814	1-4Q	2992	1-4Q	0	5806	0
Subtotal:			0	0		2814		2992		0	5806	0

Remarks: Testing costs vary annually depending on number and type of items being evaluated.

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
In-House	MIPR	PEO Soldier, Ft Belvoir, Va	0	0		2423	1-4Q	3349	1-4Q	0	5772	0
Subtotal:			0	0		2423		3349		0	5772	0

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons	PROJECT S58
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Remarks: Costs vary annually depending on number and type of items being evaluated.

Project Total Cost:	0	0	12618		15649		0	28267	0
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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
S59 SOLDIER SUPPORT EQUIPMENT - ED	0	292	308	308	307	642	642	0	2499

A. Mission Description and Budget Item Justification: Not applicable for this item.

C. Acquisition Strategy Not applicable for this item

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S60		
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
S60 CLOTHING & EQUIPMENT	0	7805	9222	9466	9387	5998	6101	0	47979

A. Mission Description and Budget Item Justification: The funding in this project supports pre-production development of state-of-the-art individual clothing and equipment to improve the survivability, mobility and sustainment affecting the quality of life of the individual Soldier. Funds for prior year efforts were funded in PE 0604713A (Project L40 - Soldier Support Systems).

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY06: Modular Boot System: Initiates Low Rate Initial Production in FY06, to build test articles, with full rate production decision in 3rd Qtr FY07.	0	470	0
FY06: Soldier Body Armor (SBA) Enhancements: Continues Product Improvement of Interceptor Body Armor (IBA) in support of fielding and execute incremental capability improvements related to technology maturity and operational feedback.	0	475	0
FY06: Organizational Clothing and Individual Equipment (OCIE) Modernization: Modernizes fabric and design of OCIE items in order to incorporate comfort and durability and improve functionality and fit (Maternity Uniform, Coveralls, Wool Winter Socks, Moisture wicking undergarments). Evaluates samples, conducts technical tests and user evaluations.	0	580	0
FY06: Combat Eye Protection (CEP): Evaluates and guides industry to Product Improve commercial ballistic eyewear and selects the most viable for incorporation of standard prescription carriers and protection against lasers. Applies/tests advanced photochromic technology and dielectric stack technology to ballistic protective lenses and examines various lens enhancements.	0	573	0
FY06: Army Combat Environmental Clothing System (ACECS): Initiates testing of items for field and user evaluation to approve material changes and/or type classification.	0	275	0
FY06: Air Drop Development: Builds Operational Test assets for Advanced Tactical Parachute System and conducts operational testing.	0	1375	0
FY06: Glove Enhancement Initiative: Continues to upgrade existing multitude of gloves to be more in line with State of the Art materials and technology/design.	0	425	0
FY06: Service Uniform Modernization: Continues efforts to incorporate new fabrics, fabric finishes and design features. (Class A Uniform, women's Mess, Dress Uniform, Blouse, Sweater Cardigan Black, Sweater Cardigan White)	0	740	0
FY06: Clothing Bag Modernization: Continues to modernize fabric and design of items contained in the clothing bag in order to improve functionality, comfort, fit and durability. Conducts Market Surveys, processes evaluation samples, conducts technical and user evaluations (Improved Physical Fitness Uniform (IPFU), duffel Bag, Towel Bath Coat cold weather, Dress & Boot Socks, Undershirt Clothing Bag)	0	622	0
FY06: Army Combat Uniform Ancillary Items: Continues to update previously identified items/specifications to include new shade requirement, design changes and component changes to conform to the new universal camouflage pattern.	0	220	0
FY06: Improved Water Purification: Initiates effort to incorporate evolving filtration/purification technologies into on-the-move hydration	0	320	0

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons	PROJECT S60
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systems.			
FY06: Advanced Bomb Suit(ABS): Continues efforts to provide capabilities enhancement to the fielded ABS consisting of NBC protection (level C) and communications components.	0	370	0
FY06: Gross Liquid Chemical Protective Ensemble: Initiates effort to replace Suit Contamination Avoidance Liquid Protective (SCALP) garment with a garment to go over Joint Services Lightweight Integrated Suit Tech (JSLIST) for splash protection. Purchases test items, test physical properties and chemical agent resistance, user preference and conduct operational testing.	0	820	0
FY06: Extreme Cold Weather Stove: Completes Technical testing to evaluate durability and fuel consumption.	0	540	0
FY07: Individual Soldier Ballistic Protection: Conducts system integration and formal DT/OT of pre-production and production representative systems applying advanced ballistic materials to increase Soldier survivability while decreasing weight, cube and cost. Integrates and enhances Soldier Body Armor, Combat Eyewear, Bomb Suit, Face Shield, Blast Protective Footwear and Combat Helmet capabilities providing head-to-toe protection from current and emerging ballistic/blast threats. Proves out commonality at the component and subsystem levels to provide a modular layered/integrated ballistic protection system.	0	0	3318
FY07: Soldier Uniforms and Clothing: Conducts system integration and formal DT/OT of preproduction and production representative systems leveraging advancements in materials, nanotechnology, fabrication techniques, moisture management, flame resistance, antimicrobial treatments, insect protection, extreme environmental protection and advancements in chem/bio protection to increase the capabilities and durability of tactical and non-tactical clothing. Proves out commonality across as broad a spectrum of users as possible to provide a modular integrated uniform/clothing system from skin out and head-to-toe.	0	0	2406
FY07: Individual Equipment: Conducts system integration and formal DT/OT of preproduction and production representative systems utilizing advancements in technology for load bearing equipment, hydration technologies including water filtration and NBC hydration, and other mission essential and/or mission specific equipment for Soldiers. Proves out as much commonality as feasible across a broad spectrum of user and mission scenarios.	0	0	2356
FY07: Soldier Cooling: Conducts system integration and formal DT/OT of preproduction and production representative advanced lightweight, low power cooling systems for use with NBC and ballistic protection ensembles. Proves out courses of action from trade-off analyses and system integration providing Soldiers enhanced ability to conduct missions for longer periods of time in extreme environments.	0	0	1142
Total	0	7805	9222

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0604713.L40, Clothing and Equipment	5114	0	0	0	0	0	0	0	5114
RDTE, 0603747.669, Clothing and Equipment	7946	0	0	0	0	0	0	0	7946
RDTE, 0603827.S53, Clothing and Equipment	0	6924	6903	9668	9184	6512	6718	CONT	CONT
OMA, 121017, Central Funding and Fielding	146876	150897	167266	112788	96765	98513	50068	CONT	CONT

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PROJECT

S60

C. Acquisition Strategy Acquisition strategies will vary in methods: quick fixes in 12-24 months or less from concept to Type Classification (TC), 2) Moderization improvements which require limited RD&E and will be completed in more than 24-48 months from inception to Type Classification, 3) Fully integrated development that will require substantial RDT&E funding and will be completed in 4 years or more.

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons							S60		
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
Various	MIPRs	Natick Soldier Center, Natick, MA	0	0		2000	1-3Q	610	1-3Q	Continue	0	0
Various	Contracts	Various	0	0		2200	1-3Q	4022	1-3Q	Continue	0	0
Subtotal:			0	0		4200		4632		Continue	0	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
Misc Support Costs	MIPR	Various	0	0		1802	1-2Q	2025	1Q	Continue	0	0
Subtotal:			0	0		1802		2025		Continue	0	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
Various	MIPRS	Various	0	0		1087	1-3Q	1640	1-3Q	Continue	0	0
Subtotal:			0	0		1087		1640		Continue	0	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
In-House Support		PM CIE Ft Belvoir, VA	0	0		716	1-4Q	925	1-4Q	Continue	0	0
Subtotal:			0	0		716		925		Continue	0	0

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PROJECT

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Project Total Cost:

0

0

7805

9222

Continue

0

0

Schedule Profile (R4 Exhibit)

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PROJECT
S60

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																												
BALLISTIC																																																								
(1) Combat Eyewear/Laser Prot trans to prod																																																								
(2) Soft Body Armor trans to prod																																																								
(3) Adv EOD Prot Ensemble trans to prod																																																								
UNIFORM CLOTHING																																																								
(4) ACU Enhancements trans to prod																																																								
(5) Adv CVC Ensemble trans to prod																																																								
(6) Moist Wick Flame Resist Undergmt trans to Prod																																																								
(7) Modular Boot trans to prod																																																								
INDIVIDUAL EQUIPMENT																																																								
(8) Cold Weather stove trans to prod																																																								
(9) NBC hydration trans to prod																																																								
SOLDIER COOLING																																																								

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
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PROJECT
S60

<u>Schedule Detail</u>	<u>FY 2005</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>
Modular Boot System LRIP		3-4Q	1-2Q				
Glove Enhancement Initiative - User Evaluations		1-4Q	1-4Q				
Extreme Cold Weather Stove Technical Testing		1-2Q					
BALLISTIC - COMBAT EYEWEAR/LASER PROT DT/OT			2-4Q	1Q			
BALLISTIC - COMBAT EYEWEAR/LASER PROT TRANS TO PROD				2Q			
BALLISTIC - SOFT BODY ARMOR DT/OT			4Q	1-2Q			
BALLISTIC - SOFT BODY ARMOR TRANS TO PROD				3Q			
BALLISTIC - ADV EOD PROT ENSEMBLE DT/OT				3-4Q	1-2Q		
BALLISTIC - ADV EOD PROT ENSEMBLE TRANS TO PROD					3Q		
UNIFORM CLOTHING - ACU ENHANCEMENTS DT/OT			2-4Q				
UNIFORM CLOTHING - ACU ENHANCEMENTS TRANS TO PROD				1Q			
UNIFORM CLOTHING - ADV CVC ENSEMBLE DT/OT					1-4Q		
UNIFORM CLOTHING - ADV CVC ENSEMBLE TRANS TO PROD						1Q	
UNIFORM CLOTHING - MOIST WICK FLAME RESIST UNDERGARMENTS DT/OT				1-3Q			
UNIFORM CLOTHING - MOIST WICK FLAME RESIST UNDERGARMENTS TRANS TO PROD				4Q			
UNIFORM CLOTHING - MODULAR BOOT DT/ OT			3-4Q	1Q			
UNIFORM CLOTHING - MODULAR BOOT TRANS TO PROD				2Q			
INDIVIDUAL EQUIPMENT - COLD WEATHER STOVE DT/OT			1-2Q				
INDIVIDUAL EQUIPMENT - COLD WEATHER STOVE TRANS TO PROD			3Q				
INDIVIDUAL EQUIPMENT - NBC HYDRATION DT/OT				2-4Q	1Q		
INDIVIDUAL EQUIPMENT - NBC HYDRATION TRANS TO PROD					2Q		
SOLDIER COOLING DT/OT				2-4Q	1-2Q		

SOLDIER COOLING TRANS TO PROD					3Q		
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BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S61	
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
S61 ACIS ENGINEERING DEVELOPMENT	0	2216	2326	2562	2662	2751	2852	0	15369

A. Mission Description and Budget Item Justification: This project provides System Development programs with improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness and facilitates full-spectrum dominance of the Army aircraft including the AH-64 Apache/Longbow, CH-47 Chinook, UH/HH-60 Blackhawk, Light Utility Helicopter, and Armed Reconnaissance Helicopter. These programs include soldier systems and equipment which are unique and necessary for the sustainment, survivability, and performance of Army aircrews and troops on the future integrated battlefield. The Air Warrior program will provide the aircrew with a systems approach to noise protection, three-dimensional audio and external audio capability, microclimate conditioning, crash and post-crash survivability, concealment and environmental protection, ballistic protection, night vision capability and heads-up display, directed energy eye protection and flame/heat protection. Air Warrior enables the Army Aviation Warfighter to meet the approved Operational Requirements Document mission length of 5.3 hours with aviators in full chemical/biological protective gear. Preplanned block improvements integrating new technologies into the Air Warrior system will continue to enhance and maximize aircrew mission performance, comfort, aircrew station interface, safety, and survivability. These funds also resource improved laser protection against emerging new threat systems and product improvement of existing helmets to improve performance and increased commonality. Maximum advantage will be taken of simulation to reduce program technical risk through early user evaluation and to reduce program design and test cost and schedules. This program does not duplicate any aircraft platform program efforts. Both joint and service independent efforts continue to be pursued under the scope of this program.

Funds for prior year efforts were funded in PE 0604801A (Project C45 - Aircrew Integrated Systems).

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Continue the integration of preplanned Air Warrior Block 2 and 3 improvements.	0	1048	891
Aircrew wireless intercom system (AWIS) encryption certification	0	1168	1435
Total	0	2216	2326

<u>B. Other Program Funding Summary</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, A PE 0604801A PROJ DC45 EMD	3236	0	0	0	0	0	0	0	6492
RDTE, A PE 0604801A, PROJ DB45 - Adv Dev	6173	0	0	0	0	0	0	0	13274
RDTE, A PE 0603827A, PROJ S51 - Adv Dev	0	3325	3497	3579	3677	4111	4109	CONT	CONT
Aircraft Procurement, Army SSN AZ3110 - ACIS	32267	31820	35346	42727	39430	57404	42849	CONT	CONT

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604601A - Infantry Support Weapons

PROJECT

S61

C. Acquisition Strategy System Development and Demonstration efforts are for the Air Warrior Block 2 Aircraft Wireless Intercom System (AWIS). The AWIS is a hands-free telecommunication device using radio signals for aircrew communication. Development efforts are awarded through competitive cost plus fixed fee contracts or by Military Interdepartmental Purchase Requests (MIPRs) to other government agencies.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons							S61		
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
Air Warrior Development	C - CPFF	Various	0	0		1666	1Q	1714	1Q	0	0	0
Subtotal:			0	0		1666		1714		0	0	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
Matrix Support	MIPR and Project Order	Various Government	0	0		144	1-4Q	150	1-4Q	0	0	0
Subtotal:			0	0		144		150		0	0	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
Developmental Testing	MIPR	Various	0	0		200	1-2Q	250	1-2Q	0	0	0
Subtotal:			0	0		200		250		0	0	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
PM Administration	Allotment	Various Government	0	0		206	1-4Q	212	1-4Q	0	0	0
Subtotal:			0	0		206		212		0	0	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S61			
Project Total Cost:	0	0		2216		2326		0	0	0

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Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S61

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
(1) High Level Ballistic Protection Prototype Dev & Test Contract Award				▲ ₁																								
(2) Block 2 System Integrator Award	▲ ₂																											
Block 2 Test and Evaluation					Block 2 DT/OT																							
Block 2 AWIS Encryption Certification									Block 2 AWIS Encryption Certification																			
(3) Block 3 System Integrator Award												▲ ₃																
Block 3 Test and Evaluation Oualification									Block 3 DT/OT																			

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S61

<u>Schedule Detail</u>	<u>FY 2005</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>
High Level Ballistic Protection Prototype Development and Testing Contract Award	4Q						
Block 2 System Development and Demonstration Award	2Q						
System Development, Demonstration, Test and Evaluation of Air Warrior Block 2	1-4Q	1-4Q	1-4Q	1Q	1-4Q		
Block 2 AWIS Encryption System		1-4Q	1-4Q	1-4Q			
Block 3 System Development and Demonstration Award			1-3Q				
Block 3 Test and Evaluation Qualification			2-4Q	1-4Q	1-4Q		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S62	
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
S62 OBJECTIVE INDIVIDUAL COMBAT WEAPON	0	19839	1814	2758	0	0	0	0	24411

A. Mission Description and Budget Item Justification: The Objective Individual Combat Weapon (OICW) is a program to develop a dual barrel weapon system allowing the Soldier to fire both kinetic energy and air bursting munitions from the same weapon system, and is comprised of three increments.

The OICW Increment I program will conduct a full and open competition on the family of weapons. The OICW Increment I is the kinetic energy portion of the OICW Increment III dual barrel weapon system. It will provide improved reliability, durability, and improved modularity in theater. It will also increase Soldier effectiveness by providing improved first shot hit probability against moving threat targets from 0-300 meters. The OICW Increment I program includes a Multi-Function Sighting System that will allow the Soldier to have the functions of multiple sights in a single package.

The OICW Increment II program will continue the System Development and Demonstration (SDD) Phase of the Air Burst Weapon System, which is the second increment of the OICW program. The OICW Increment II is the air burst portion of the OICW Increment III dual barrel weapon system. The OICW Increment II dramatically increases Soldier lethality, survivability and standoff. The air burst weapon provides the Soldier with a 300-500% increase in hit probability to defeat point, area and defilade targets out to approximately 500 meters. The OICW Increment II weapon includes revolutionary high explosive air bursting munitions and an integrated, multi-functional, all environment, full-solution target acquisition / fire control system. The OICW Increment II program includes a 25mm family of munitions consisting of armor piercing, anti-personnel, non-lethal, and training practice round.

The Increment III program will continue the SDD phase by combining Increments I and Increments II into an integrated weapon with both kinetic and airburst capabilities.

Funds for prior year SDD efforts were funded under PE 0604802A (Project D134 - Objective Individual Combat Weapon).

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Prototype Evaluation & Down Selection - OICW Increment I	0	3800	0
Bid Sample Test - OICW Increment I	0	800	0
Design & Fabricate - OICW Increment I	0	4900	0
Program Management - OICW Increment I & II	0	857	115
Pre-System Development & Demonstration - OICW Increment II	0	9232	54
Pre-System Development & Demonstration Test - OICW Increment II	0	250	400
Design, Develop & Fabricate - OICW Increment II	0	0	1245
Total	0	19839	1814

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S62

<u>B. Other Program Funding Summary</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE: PE 0603802A, Project AS3	6385	0	0	0	0	0	0	0	6385
RDTE: PE 0604802A, Project D134	19554	0	0	0	0	0	0	0	19554
WTCV: SSN G16101	400	0	32339	122060	137579	142715	144631	0	579724

Comment: In FY 2005, PE 0603802A (Project AS3) and PE 0604802A (Project 134) funds Increment I and Increment II of the OICW Program.

C. Acquisition Strategy The OICW Increment I will reach Milestone B in 4Q FY 2007. The System Development and Demonstration (SDD) phase will complete development of the OICW Increment I weapon and verify training solution for the Milestone C approval in FY 2008.

The OICW Increment II will reach Milestone B in 4Q FY 2007. The System Development and Demonstration (SDD) phase will complete development of the OICW Increment II weapon system and verify training solution for the Milestone C approval in FY 2010.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons							S62		
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
OICW Increment I - Prototype Evaluation & Down Selection	TBS	Multiple	0	0		3300	4Q	0	1-2Q	0	0	0
OICW Increment I - Design & Fabricate	Cost Plus Fixed Fee	TBS	0	0		4900		0	4Q	0	0	0
OICW Increment II - Pre-System Development & Demonstration	Cost Plus Fixed Fee	ATK Minneapolis, MN	0	0		7776	4Q	0		0	0	0
OICW Increment II - Design, Develop & Fabricate	Cost Plus Fixed Fee	ATK Minneapolis, MN	0	0		0		1145	4Q	0	0	0
Subtotal:			0	0		15976		1145		0	0	0
Remarks: The OICW Increment I contract award is subject to the JROC approval of the CDD prior to 4Q FY06.												
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
OICW Increment I - Engineering Support	MIPR	Multiple	0	0		500	4Q	0	1-4Q	0	0	0
OICW Increment II - Engineering Support	MIPR	Multiple	0	0		1356	4Q	108	1-4Q	0	0	0
OICW Increment II - Training Support	MIPR	PEO STRI	0	0		100	4Q	46	1-4Q	0	0	0
Subtotal:			0	0		1956		154		0	0	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
OICW Increment I - Bid Sample Test	MIPR	ATC, Aberdeen Proving Ground, MD	0	0		800		0	2-4Q	0	0	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons							S62		
OICW Increment II - Pre-System Development & Demonstration	MIPR	Various	0	0		250	2-4Q	400	1-4Q	0	0	0
Subtotal:			0	0		1050		400		0	0	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
Program Management OICW Increment I	In-House	PM Soldier Weapons Picatinny Arsenal, NJ	0	0		500	2-4Q	0	1-4Q	0	0	0
Program Management OICW Increment II	In-House	PM Soldier Weapons Picatinny Arsenal, NJ	0	0		357	2-4Q	115	1-4Q	0	0	0
Subtotal:			0	0		857		115		0	0	0
Project Total Cost:			0	0		19839		1814		0	0	0

Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S62

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
OICW INCREMENT I																												
Prototype Evaluation & Down Selection - OICW Inc. I																												
(1) MS B - OICW Inc. I																												
Design & Fabricate - OICW Inc. I																												
Development Tests & Evaluation - OICW Inc. I																												
(2) MS C - OICW Inc. I																												
OICW INCREMENT II																												
Pre-System Development & Demo - OICW Inc. II																												
(3) MS B - OICW Inc. II																												
Design, Develop and Fabricate - OICW Inc. II																												
Development Tests & Evaluation - OICW Inc. II																												
(4) Milestone C - OICW Inc. II																												

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
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<u>Schedule Detail</u>	<u>FY 2005</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>
Prototype Evaluation & Down Selection - OICW Increment I		4Q	1-4Q				
Milestone B - OICW Increment I			4Q				
Design & Fabricate - OICW Increment I			4Q	1Q			
Development Tests & Evaluation - OICW Increment I				1-4Q	1Q		
Milestone C - OICW Increment I				3Q			
Pre-System Development & Demonstration - OICW Increment II		4Q	1-4Q				
Milestone B - OICW Increment II			4Q				
Design, Develop & Fabricate - OICW Increment II			4Q	1-4Q			
Development Tests & Evaluation - OICW Increment II					1-4Q	1Q	
Milestone C - OICW Increment II						2Q	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S63		
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
S63 SMALL ARMS IMPROVEMENT	0	8121	2429	14117	4888	14983	11117	0	55655

A. Mission Description and Budget Item Justification: The Small Arms Improvement program provides demonstration of engineering development models or integrated commercial items designed to enhance lethality, target acquisition, fire control, training effectiveness, and reliability for small arms weapon systems and ammunition. Future programs will provide enhancements to weapons, fire control, ammunition, and optics through improved technology associated with light weight materials, obscurants, reconnaissance, observation, lethal and non-lethal ammunition, and electronics. Current small arms include a variety of personal defense weapons (9mm), individual weapons (5.56mm), crew-served weapons (7.62mm and 40mm), and related items such as fire control equipment, training devices, and ammunition. Current efforts focus on improvements to current weapons such as the M249 Squad Automatic Weapon (SAW), the M16 Rifle, the M4 Carbine, the MK19 Grenade Machine Gun, the M2 Machine Gun, and the M240 Medium Machine Gun. Other improvements are included as well, such as enhancements to mounts and ammunition. Specifically, this includes improvements to the XM1037 Short Range Training Ammo for the M249 SAW, development of Light Weight Ammo, an improved HMMWV Auxiliary Weapon Mount, integration of the Advanced Crew Served Weapon (ACSW) on the Common Remotely Operated Weapon Station (CROWS), and improved combat optics. Future programs include Proximity Ammo (formerly called Air Burst Ammo), and a Light Weight Machine Gun (FY07 new start effort). Platform Integration efforts include the development of a MK93/MK64 cradle adapter providing the Soldier with the capability of using M249 and M240 machine guns, and the development of a new M2 Light Weight Tripod. Future efforts will also be pursued for alternate integration of M249 mounts, M240 mounts, MK19 mounts, and XM307 mounts with numerous alternate platforms, replacements, and enhancements to all current and future weapons systems.

Funds for prior year efforts in this project were funded in PE 0604802 (Project DAS1 - Small Arms Improvements).

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
XM1037 Short Range Training Ammunition for the M249 SAW	0	0	0
- DT	0	200	0
- Safety Confirmation	0	10	0
- System Evaluation Report	0	40	0
- Milestone C	0	70	0
M240 Weight Reduction (Transition from PE 0604802 / Project DAS1	0	0	0
- Technical Test/Limited User Test	0	255	0
- Independent Assessment/Test Reports	0	155	0
- Program Documentation/TC-STD	0	125	0
Platform Integration of Crew Served Weapons	0	0	0
- HMMWV Imp Auxiliary Weapon Mount	0	0	0

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)			February 2006		
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT			
5 - System Development and Demonstration	0604601A - Infantry Support Weapons	S63			
- Market Research/Survey/Evaluation		0	12	0	
- In House Design, Development, Testing and Improvement		0	304	0	
- Production Hardware		0	200	0	
- Technical Testing		0	163	0	
M2 Machine Gun, Lightweight Tripod		0	0	0	
- Market Research / Evaluation		0	120	0	
- Design, Development, Engineering, Testing, and Evaluation		0	321	155	
- Design Improvements		0	0	160	
- Modeling, Simulation & Fabricate Prototypes		0	0	160	
- Technical Testing		0	0	60	
- Prepare RFP		0	0	22	
Advanced Crew Served Weapon Integration on CROWS		0	0	0	
- Contract Award		0	1690	0	
- Design, Development & Engineering		0	440	0	
- Integration Support		0	30	0	
- Demonstration		0	30	0	
Swing Arm Mounts, MK64 Cradles, and Universal Pintle Adapters		0	0	0	
- Market Research/Survey/Evaluation		0	0	50	
- Design, Prototype Development, Manufacture and Testing		0	0	450	
- Technical & Operational Tests		0	0	443	
- Safety Release		0	0	50	
Small Caliber Lightweight Ammo		0	0	0	
- Prepare RFP / Contract Award		0	60	0	
- Sample Fabrication, Lethality/Reliability, Test, Design Review/Eng		0	1320	0	
- Manufacture DTI Qty		0	450	0	
- DT I		0	0	200	
- Design Review		0	0	75	
- Eng Analysis		0	0	304	
LT WT Medium Machine Gun (FY07 New Start)		0	0	0	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)	February 2006
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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604601A - Infantry Support Weapons	PROJECT S63		
- Conduct Market Survey		0	0	70
- Analysis of Alternative/Requirements		0	0	90
- Develop ICD		0	0	90
Improved combat optics		0	0	0
- Evaluate/Downselect		0	340	0
- Award Contract/Produce Hardware		0	150	0
- DT/OT Independent Evaluation		0	510	0
- Prepare Program Documentation/MS C		0	200	0
Proximity Ammo (formerly called Airburst Ammo) (Transition from PE 0603802A Project DAS2)		0	0	0
- System Parameter Analysis		0	0	50
M2E2 Quick Change Barrel Kit		0	0	0
- Headspace Analysis		0	44	0
Lightweight 5.56mm Polymer Ammo.		0	0	0
- Design Review/Engineering		0	202	0
- Contract Award		0	680	0
Total		0	8121	2429

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
WTCV, GZ1290, Squad Auto Wpn (MODS)	19685	7553	5253	9361	4153	5090	3150	0	54245
WTCV, GZ2800, M16 Rifle MODS	20476	11533	1012	3900	1017	3563	3558	0	45059
WTCV, GB3000, MK19 MODS	4217	5371	3168	6264	7724	8433	8581	0	43758
WTCV, GZ1300, Med MG (MODS)	15583	15994	5293	14077	0	4277	3558	0	58782
WTCV, GB3007, M4 Carbine MODS	87914	89637	30871	13696	6081	13472	9441	0	251112
RDTE, AS1 - Small Arms Improvements	8709	0	0	0	0	0	0	0	16798

C. Acquisition Strategy Primary strategy is to mature and finalize design efforts, award RDT&E hardware contracts, and test and evaluate systems that will result in type classification and follow-on production contract awards.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604601A - Infantry Support Weapons

PROJECT

S63

Empty justification box for budget item 0604601A (S63).

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons							S63		
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
Hardware Development	TBD	Various	0	0		3695	1-3Q	0		Continue	0	0
Subtotal:			0	0		3695		0		Continue	0	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
Development	MIPR	RDECOM - ARDEC, Picatinny Arsenal, NJ	0	0		1941	1-3Q	1286	1-3Q	0	0	0
Logistics	MIPR	TACOM, Rock Island Arsenal, IL	0	0		140	1-3Q	0		0	0	0
Human Research and Eng Directorate	MIPR	Aberdeen Proving Ground (APG), MD	0	0		135	1-3Q	75	1-3Q	0	0	0
Subtotal:			0	0		2216		1361		0	0	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
DT	MIPR	Developmental Test Command (DTC), Aberdeen Proving Ground (APG), MD	0	0		875	1-3Q	365	1-3Q	Continue	0	0
OT	MIPR	Army Test and Evaluation Command (ATEC), Alexandria, VA	0	0		280	1-3Q	258	1-3Q	0	0	0
Validation Testing	MIPR	Developmental Test Command (DTC),	0	0		235	1-3Q	10	1-3Q	0	0	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT		
5 - System Development and Demonstration			0604601A - Infantry Support Weapons								S63		
		Aberdeen Proving Ground (APG), MD											
Subtotal:			0	0		1390		633		Continue	0	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	
Program Management	In House	PM Soldier Weapons, Picatinny Arsenal, NJ	0	0		750	1-3Q	380	1-3Q	0	0	0	
Travel	In House	PM Soldier Weapons, Picatinny Arsenal, NJ	0	0		70	1-3Q	55	1-3Q	0	0	0	
Subtotal:			0	0		820		435		0	0	0	
Project Total Cost:			0	0		8121		2429		0	0	0	

Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S63

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				
SDD 037 Short Range Training Round for M249					SDD																											
(1) MSC									▲ ₁ MSC																							
Platform Integration of Crew Served Weapons																																
SDD									SDD																							
Small Caliber Light Weight Ammo									SDD				SDD																			
DT																	DTII 															
(2) IPR																	▲ ₂ IPR															
Light Weight Medium Machine Gun																	SDD				SDD											
(3) MSC																									▲ ₃ MSC							
Improved Combat Optic									SDD																							
(4) MSC									▲ ₄ MSC																							

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604601A - Infantry Support Weapons

PROJECT
S63

<u>Schedule Detail</u>	<u>FY 2005</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>
M249 Short Range Training Ammunition							
- DT		3Q					
- Safety Confirmation		3Q					
- System Evaluation Report (FY06 Carryover)		4Q	1Q				
- Milestone C (FY06 Carryover)			1Q				
M240 Weight Reduction							
- Technical Test/Limited User Test (FY06 Carryover)			1Q				
- Independent Assessment/Test Reports (FY06 Carryover)			1-2Q				
- Program Documentation/TC-STD (FY06 Carryover)			2Q				
Platform Integration of Crew Served Weapons							
- HMMWV Imp Auxiliary Weapon Mount							
- Market Research/Survey/Evaluation		1Q					
- In House Design, Development, Testing and Improvement		2-3Q					
- Production Hardware		3-4Q					
- Technical Testing		4Q					
- M2 MG, LTWT Tripod							
- Market Research/Evaluation		2Q					
- Design, Development, Engineering, Testing, and Evaluation		3-4Q	1Q				
- Design Improvements			1-2Q				
- Modeling, Simulation, & Fabricate Prototypes			2Q				
- Technical Testing			3Q				
- Prepare RFP			4Q				
- Contract Award				1Q			
- Test Hardware				2Q			
- Technical Testing				3Q			

- Milestone C				4Q			
- ACSW Integration on CROWS							
- Contract Award		2Q					
- Design, Development & Engineering (FY06 Carryover)		3-4Q	1Q				
- Integration Support (FY06 Carryover)		3-4Q	1Q				
- Demonstration (FY06 Carryover)		3-4Q	1Q				
- Swing Arm/MK64 Cradle/Universal Pintle Adapter							
- Market Research/Survey/Evaluation			1Q				
- Design, Prototype Development, Manufacture and Testing			1-3Q				
- Technical & Operational Tests			3-4Q				
- Safety Release			4Q				
- Minigun/Javelin CROWS Mounts							
- Safety Release				1Q			
- IPR				1Q			
- Survey				1Q			
- In-House Design				2Q			
- Prototypes				2Q			
- Val Test				2-3Q			
- Redesign				3Q			
- Manufacturing				3Q			
- Tech Testing				4Q			
- Improved HMMWV Ring Mount							
- Operational Test					1Q		
- Safety Release					2Q		
- IPR					2Q		
Small Caliber LT WT Ammo							
- Prepare RFP/Contract Award		1-2Q					
- Sample Fabrication, Lethality/Reliability, Test, Design Review/Eng		4Q	1-3Q				
- Manufacture DTI Qty (FY06 Carryover)			3-4Q				
- DT I			4Q				

- Design Review			4Q				
- Eng Analysis (FY07 Carryover)			4Q	1Q			
- Contract Award, Option 1				1Q			
- Manufacture DT II Qty				1-3Q			
- DT II				3-4Q			
- Live Fire Test/Final Hazard Classification				3-4Q			
- Prepare IPR Package				3-4Q			
- LUT				4Q			
- IPR				4Q			
LT WT Medium Machine Gun							
- Conduct Market Survey			1-2Q				
- Analysis of Alternatives/Requirements			2-3Q				
- Develop ICD			3-4Q				
- Program Transition				1-2Q			
- Prepare Program Documentation/MS B				2-3Q			
- Prepare Request for Proposal				4Q			
- Program Transition					1Q		
- Prepare Request for Proposal					1Q		
- Proposal Evaluation					1-2Q		
- Contract Award (Phase I)					2Q		
- Fabricate Test Hardware					2-3Q		
- Design Confidence Test					4Q		
- Contract Award (Phase II)					4Q		
- Design Refinements						1-2Q	
- CDR/IPR						2Q	
- Fabricate DT/OT Hardware						3-4Q	
- DT/OT						4Q	1Q
- Test Reports/Evaluations							2-3Q
- Prepare MS C Documentation							2-4Q
Improved combat optics							

- Evaluate/Downselect		1Q					
- Award Contract/Produce Hardware		3Q					
- DT/OT Independent Evaluation		3-4Q					
- Prepare Program Documentation/MS C		4Q					
Proximity Ammo (formerly, Airburst Ammo) (Transitioned from PE 0603802A Project DAS2)							
- System Parameter Analysis			1-2Q				
M2E2 Quick Chnge Barrel Kit							
- Headspace Analysis		2Q					
Lightweight 5.56mm Polymer Ammo							
- Design Review/Engineering		2Q					
- Contract Award		3Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604601A - Infantry Support Weapons						PROJECT S64	
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
S64 COMMON REMOTELY OPERATED WPN SYS (CROWS)	0	2366	0	0	0	0	0	0	2366

A. Mission Description and Budget Item Justification: Not applicable for this item.

<u>Accomplishments/Planned Program</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Design Development and Engineering	0	2366	0
Total	0	2366	0

C. Acquisition Strategy Not applicable for this item

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
5 - System Development and Demonstration			0604601A - Infantry Support Weapons								S64	
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
Subtotal:			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
Subtotal:			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
Subtotal:			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									
Project Total Cost:			0									