

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)						February 2003				
BUDGET ACTIVITY 2 - Applied Research			PE NUMBER AND TITLE 0602623A - JOINT SERVICE SMALL ARMS PROGRAM				PROJECT H21			
COST (In Thousands)			FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
H21	JT SVC SA PROG (JSSAP)		5088	5468	5835	5979	6173	6463	6606	6760
<p><b><u>A. Mission Description and Budget Item Justification:</u></b> Investigates and researches key individual and crew-served weapon technologies that will enable the Army Transformation to the Objective Force by enhancing the fighting capabilities and survivability of dismounted battlefield personnel of the Services. Funded efforts include component technologies for: the Objective Crew-Served Weapon (OCSW); the Objective Individual Combat Weapon (OICW) System Enhancements; the Lightweight Machine Guns and Ammunition (LMGA); Light Fighter Lethality; and Advanced Medium Machine Gun Technology. OCSW provides the next generation crew-served weapon with improved combat effectiveness, including bursting munitions technology to provide 500%+ increase in probability of target incapacitation at extended range (to 2000m) with the capability to hit protected personnel targets in defilade (obscured or non-visible), and reduced weight over weapons it replaces. The OCSW is designed to replace selected M2 machine guns and MK19 grenade machine guns. The OICW System Enhancement efforts develop lethality-enhancing and cost/weight-reducing technologies for OICW. TheLMGA, complementing both the highly lethal OICW &amp; OCSW will offer significantly reduced weight over the currently fielded M249 SAW and its associated ammunition. This weapon will lighten the soldier's load, provide improved battlefield mobility and reduced logistics burden to maximize operational utility and survivability, while maintaining current levels of performance. Light Fighter Lethality effort provides smart munition based weapon system technologies that will reduce dramatically warfighter system weight (25-50% weapon weight reduction), provide near 100% lethality, and maximize operational utility and survivability for the Objective Force. The Advanced Medium Machine Gun Technology effort provides technologies for a lighter, more effective and versatile replacement for current 7.62mm medium machine guns. The technology enhancement efforts of this PE will assure that the Objective Family of Small Arms (OFSA), the next generation of small arms weapons systems, continues to overmatch the evolving threat and addresses the needs of the Objective Force. All Joint Service Small Arms Program (JSSAP) efforts are based upon the Joint Service Small Arms Master Plan (JSSAMP), Mission Needs Statements and Operational Requirements Documents of the Services. The cited work is consistent with the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan and Project Reliance. The program element contains no duplication with any effort within the Military Departments. This program is primarily managed by the U.S. Army Armament Research, Development and Engineering Center (ARDEC), Picatinny Arsenal, New Jersey. Work in this PE is related to, and fully coordinated with, efforts in PE 0602624A (Weapons and Munitions Technology), and PE 0603607A (Joint Service Small Arms Program). Transition paths have been established in coordination with Program Executive Officer Soldier, Project Manager Soldier Weapons, Product Manager (PM) Small Arms, PM OICW, USMC Director Ground Weapons and US Special Operations Command (SOCOM). This program supports the Objective Force transition path of the Transformation Campaign Plan. No Defense Emergency Response Funds have been provided to this program.</p>										

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<u>Accomplishments/Planned Program</u>		FY 2002	FY 2003	FY 2004	FY 2005	
-OCSW: In FY02, demonstrated target acquisition/fire control system ranging and ballistic solution calculation; demonstrated muzzle velocity correction capability; completed plan and preparations for OCSW Advanced Technology Demonstration technical and troop testing; In FY03, refine fuze design; evaluate explosive train; conduct environmental testing of weapon; extend limits of man-rated firing; fabricate/upgrade weapons; complete contractual reporting requirements.		3166	1351	0	0	
-OICW: In FY03, complete Micro Scale Firetrain formulation and transfer charge design for gun launched micro electro-mechanical system based safe and arming evaluation.		0	1000	0	0	
LMGA: In FY03, investigate weapon component technologies and work with Objective Force Warrior Lead Technology Integrators to determine needs. Quantify operational and human enhancements for individual soldiers through modeling, simulation and analyses of applicable concepts. Assess alternate case ammunition concepts as enabling technologies for a lightweight family of weapons and for lightweight 5.56 ammunition. In FY04, evaluate and mature lightweight material technologies for small arms application. Design and assess mechanisms to reduce weight and provide component commonality across a family of weapons. Assess potential of placing traditional weapon function on the soldier and of placing other soldier system controls on the weapon. In FY05, downselect to final weapon development design.		0	3117	4835	4979	
-Light Fighter Lethality: In FY02, completed design and verification of critical sub-system designs through constructive simulation of individual and force on force empirical performance, leading to final design selection and fabrication of test hardware.		1922	0	0	0	
-Future Combat System (FCS): In FY04, provide support to FCS through Objective Force Warrior program. In FY05 develop plans for integration of individual soldier lethality with FCS program.		0	0	1000	1000	
Totals		5088	5468	5835	5979	

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<u><b>B. Program Change Summary</b></u>	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	5560	5812	5891	6208
Current Budget (FY 2004/2005 PB)	5088	5468	5835	5979
Total Adjustments	-472	-344	-56	-229
Congressional program reductions				
Congressional rescissions		-178		
Congressional increases				
Reprogrammings	-346	-31		
SBIR/STTR Transfer	-126	-135		
Adjustments to Budget Years			-56	-229