Exhibit R-2, **RDT&E Budget Item Justification:** PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0603851M: Joint Non-Lethal Weapons Testing

BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	42.464	40.992	44.994	-	44.994	60.907	53.731	54.732	55.728	Continuing	Continuing
2319: Non-Lethal Weapons	42.464	40.992	44.994	-	44.994	60.907	53.731	54.732	55.728	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DoD's Joint Non-Lethal Weapons Program (JNLWP) was established by the Secretary of Defense, who assigned centralized responsibility for DoD joint research and development of non-lethal weapons and technology to the Commandant of the Marine Corps as the Executive Agent. The Under Secretary of Defense for Acquisition, Technology and Logistics (USD AT&L) provides principle oversight of the JNLWP.

The efforts in this Program Element (PE) reflect Joint Service research and development (R&D) investment decisions provided by the Joint Non Lethal Weapons Integrated Product Team, a multi-service flag level corporate board that executes the JNLWP for the Executive Agent. Research conducted is based on the needs and capabilities of the Services, the Special Operations Command and the Coast Guard, as identified in the DoD's Non-Lethal Weapons Joint Capabilities Document. This coordinated joint R&D development approach addresses mutual capability gaps and assures the best non-lethal technologies and equipment are provided to the operating forces while eliminating duplicative Service investment.

This PE funds Joint Service research, development, test, and evaluation of non-lethal weapon (NLW) systems and technologies that provide a non-lethal capability to minimize fatal or permanent injuries as well as undesired damage to property and the environment. NLW are designed to incapacitate or hinder movement of individuals, crowds, or equipment. The availability of NLW allows commanders less than lethal options, across the spectrum of military operational warfare, i.e., peacekeeping, humanitarian assistance and disaster relief, as well as special operations.

The Joint Non-Lethal Weapons Directorate was established by the Executive Agent to manage the day to day research and development activities of the DoD Joint Non-Lethal Weapons Program. The JNLWP funding is distributed amongst the USA, USAF, USN, USMC, SOCOM, and USCG in support of NLW research and development efforts. Each Service is responsible for their procurement and operating support costs.

Due to the number of efforts in this PE, the programs described herein are representative of the work included in this PE.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0603851M: Joint Non-Lethal Weapons Testing

BA 4: Advanced Component Development & Prototypes (ACD&P)

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	43.272	40.992	50.348	-	50.348
Current President's Budget	42.464	40.992	44.994	-	44.994
Total Adjustments	-0.808	-	-5.354	-	-5.354
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.585	-			
 Program Adjustments 	-	-	-5.219	-	-5.219
 Rate/Misc Adjustments 	-	-	-0.135	-	-0.135
 Congressional General Reductions Adjustments 	-0.223	-	-	-	-

Change Summary Explanation

Beginning in FY 2013, previously OM,MC appropriation funded operating costs (i.e. civilian salaries) were permanently transferred into this Program Element, which increased funding by \$3.1M.

Exhibit R-2A, RDT&E Project Just	tification: PE	3 2013 Navy							DATE: Febr	uary 2012		
APPROPRIATION/BUDGET ACTIV	/ITY			R-1 ITEM N	IOMENCLAT	TURE		PROJECT				
1319: Research, Development, Test								2319: Non-Lethal Weapons				
BA 4: Advanced Component Develo	pment & Pro	ototypes (AC	CD&P) Testing									
COST (\$ in Millions)			FY 2013	FY 2013	FY 2013					Cost To		
COST (\$ III WIIIIOIIS)	FY 2011	FY 2012	Base	oco	Total	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost	
2319: Non-Lethal Weapons	42.464	40.992	44.994	-	44.994	60.907	53.731	54.732	55.728	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			

A. Mission Description and Budget Item Justification

This project develops non-lethal weapon (NLW) systems that provide a new non-lethal capability to minimize fatal or permanent injuries and undesired damage to property and the environment. These systems are designed to stun, incapacitate, or hinder movement of individuals, crowds or equipment. The availability of NLW allows commanders less than lethal options, particularly in urban warfare and military operations other than war, i.e., peacekeeping, humanitarian assistance and disaster relief, as well as special operations.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: *Modeling and Simulation (M&S) of NLWs.	1.167	1.202	1.256
Articles: FY 2011 Accomplishments: Continued modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training.	O	O	U
FY 2012 Plans: Continue modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training.			
FY 2013 Plans: Continue modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training.			
Title: *Evaluations of NLWs. Articles:	1.486 0	1.531 0	2.250 0
FY 2011 Accomplishments: Continued evaluation of NLWs by Service warfighting laboratories and Joint Staff, J7, Joint and Coalition Warfighting for direct user feedback of various non-lethal (NL) technologies and munitions to include policy and strategy and strategic communication.			
FY 2012 Plans: Continue evaluation of NLWs by Service warfighting laboratories and Joint Staff, J7, Joint and Coalition Warfighting for direct user feedback of various non-lethal (NL) technologies and munitions to include policy and strategy and strategic communication.			
FY 2013 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Fel	oruary 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851M: Joint Non-Lethal Weapons Testing	PROJEC 2319: <i>No</i>	DJECT 9: Non-Lethal Weapons			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each)		FY 2011	FY 2012	FY 2013	
Continue evaluation of NLWs by Service warfighting laboratories and feedback of various non-lethal (NL) technologies and munitions to inc	, ,					
Title: *JNLW Program's execution oversight and technologies database	ase support.	Articles:	3.777 0	3.890 0	6.998 0	
FY 2011 Accomplishments: Continued execution oversight, administration and support of the Jointhis line item for FY2013 and out reflects funding for the operation of		ncrease in				
FY 2012 Plans: Continue execution oversight, administration and support of the Joint this line item for FY2013 and out reflects funding for the operation of		crease in				
FY 2013 Plans: Continue execution oversight, administration and support of the Joint this line item for FY2013 and out reflects funding for the operation of		crease in				
Title: *Program Support of the Joint NLW Program.		Articles:	2.253 0	2.321 0	2.425 0	
FY 2011 Accomplishments: Continued program support efforts for each Service's coordination ar SOCOM and USCG.	nd participation in the Joint NLW Program. This inc	cludes				
FY 2012 Plans: Continue program support efforts for each Service's coordination and SOCOM and USCG.	d participation in the Joint NLW Program. This incl	udes				
FY 2013 Plans: Continue program support efforts for each Service's coordination and SOCOM and USCG.	d participation in the Joint NLW Program. This incl	udes				
Title: *Active Denial Technology (ADT) Transition.		Articles:	1.950 0	1.000	1.045 0	
FY 2011 Accomplishments:						

UNCLASSIFIED

PE 0603851M: Joint Non-Lethal Weapons Testing Page 4 of 12 R-1 Line #72 Navy

	UNCLASSIFIED					
Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Feb	ruary 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851M: Joint Non-Lethal Weapons Testing	PROJECT 2319: Nor	JECT : Non-Lethal Weapons			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	antities in Each)		FY 2011	FY 2012	FY 2013	
Continued maturation of active denial technologies to increase system preparation for transition to joint acquisition programs of record.	n efficiencies and reduce system size, weight and	cost in				
FY 2012 Plans: Continue maturation of active denial technologies to increase system preparation for transition to joint acquisition programs of record.	efficiencies and reduce system size, weight and c	ost in				
FY 2013 Plans: Continue maturation of active denial technologies to increase system preparation for transition to joint acquisition programs of record.	efficiencies and reduce system size, weight and c	ost in				
Title: *JNLW Emerging Technologies		Articles:	15.216 0	15.650 0	16.120 0	
FY 2011 Accomplishments: Continued the advanced development of a wide range of Counter-Pei in directed energy and kinetic weapons and munitions to support Compriorities. This line item funds maturing technology transitions from a Lethal system demonstrations included escalation of force vehicle sto Emplaced Vehicle Stopper, long range vessel stopping options with Rentanglement devices, counter material options with a counter electro Human Electro-Muscular Incapacitation.	nbatant Commands and Service capability gaps are advanced technology development efforts. Successopping options with Distributed Sound and Light Are Vessel Stopper, small and mid size vessel stopper.	nd sful Non- ray/Pre- ping with				
FY 2012 Plans: Continue the advanced development of a wide range of Counter-Pers directed energy and kinetic weapons and munitions to support Comba This line item funds maturing technology transitions from advanced te	atant Commands and Service capability gaps and					
FY 2013 Plans: Continue the advanced development of a wide range of Counter-Pers directed energy and kinetic weapons and munitions to support Comba This line item funds maturing technology transitions from advanced te	atant Commands and Service capability gaps and					
Title: *System development and Design of technology development.		Articles:	5.864 0	3.764 0	4.508 0	
FY 2011 Accomplishments:						

UNCLASSIFIED

PE 0603851M: Joint Non-Lethal Weapons Testing Page 5 of 12 R-1 Line #72 Navy

	UNCLASSIFIED					
Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Fel	oruary 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851M: Joint Non-Lethal Weapons Testing	PROJEC 2319: Noi	ROJECT 19: Non-Lethal Weapons			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	antities in Each)		FY 2011	FY 2012	FY 2013	
Continued system development and design of technology developme to provide NL technology solutions to critical joint mission tasks.	nt downselected items to proceed into the acquisit	tion cycle				
FY 2012 Plans: Continue system development and design of technology development provide NL technology solutions to critical joint mission tasks.	t downselected items to proceed into the acquisition	on cycle to				
FY 2013 Plans: Continue system development and design of technology development provide NL technology solutions to critical joint mission tasks.	t downselected items to proceed into the acquisition	on cycle to				
Title: *Develop/expand the NATO Measures of Effectives (MOE) effort	rts.	Articles:	1.873 0	1.981 0	2.070 0	
FY 2011 Accomplishments: Continued to develop/expand the NATO Measures of Effectives (MOE Capabilities Initiative (DCI) and NATO assessment of NLW in the Deficommander (COCOM) staffs to identify emerging NLW capabilities armissions.	ense planning process. Expanded interaction with	combatant				
FY 2012 Plans: Continue to develop/expand the NATO Measures of Effectives (MOE) Capabilities Initiative (DCI) and NATO assessment of NLW in the Defi commander (COCOM) staffs to identify emerging NLW capabilities ar missions.	ense planning process. Expanded interaction with	combatant				
FY 2013 Plans: Continue to develop/expand the NATO Measures of Effectives (MOE) Capabilities Initiative (DCI) and NATO assessment of NLW in the Deficommander (COCOM) staffs to identify emerging NLW capabilities armissions.	ense planning process. Expanded interaction with	combatant				
Title: *Mission Payload Module Non Lethal Weapon System (formerly	TUGV)	Articles:	3.046 0	4.664 0	2.134 0	
FY 2011 Accomplishments: Continued development of a tube launched NL munition for integration meters threshold (T) and 10 -500 meters objective (O). Efforts will incomplete the continued of the		S B				

UNCLASSIFIED

PE 0603851M: Joint Non-Lethal Weapons Testing Navy Page 6 of 12 R-1 Line #72

	ONCLASSII ILD					
Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: Feb	oruary 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603851M: Joint Non-Lethal Weapons Testing	PROJEC 2319: <i>No.</i>	OJECT 9: Non-Lethal Weapons			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qua	antities in Each)		FY 2011	FY 2012	FY 2013	
documentation development, coordination and approval. Conducted (and Risk of Significant Injury (RSI) of the contractor's non-lethal munit proposed system design to ensure that the technology within the prop	tions designs. Evaluated the technical adequacy	of the				
FY 2012 Plans: Continue development of a tube launched NL munition for integration range of 30-150 meters (T) and 10 - 500 meters (O). Efforts will inclu review, preliminary review boards and panels.						
FY 2013 Plans: Continue development of a tube launched NL munition for integration range of 30-150 meters (T) and 10 - 500 meters (O). Finalize system determine system readiness for developmental testing.						
Title: *Joint Integration Program (JIP).		Articles:	0.600 0	0.600	0.600	
FY 2011 Accomplishments: Continued to select and test newly developed commercial products the capability set common items. Evaluations included the following COTS Non-Lethal Fogger Grenades.						
FY 2012 Plans: Continue to select and test newly developed commercial products that capability set common items.	at may meet the Joint Service requirements for spe	cific NL				
FY 2013 Plans: Continue to select and test newly developed commercial products that capability set common items.	at may meet the Joint Service requirements for spe	ecific NL				
Title: *Studies and Analysis		Articles:	5.232 0	4.389	5.588	
FY 2011 Accomplishments: Continued medical and NL casualty data research and collection; hun technical studies/ analysis of emerging technologies for possible NL a included analysis on Kibosh, Harbinger and Mission Payload Module	application. Human Effects Studies and assessme	nd nts			O	

UNCLASSIFIED

PE 0603851M: Joint Non-Lethal Weapons Testing Page 7 of 12 R-1 Line #72 Navy

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0603851M: Joint Non-Lethal Weapons	2319: Non-	Lethal Weapons
BA 4: Advanced Component Development & Prototypes (ACD&P)	Testing		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
study, and assessment of methodology used to determination of Non-Lethal Risk of Significant Injury (RSI) for multiple munitions and systems.			
FY 2012 Plans: Continue medical and NL casualty data research and collection; human effects assessments; acceptability analysis; and technical studies/ analysis of emerging technologies for possible NL application.			
FY 2013 Plans: Continue medical and NL casualty data research and collection; human effects assessments; acceptability analysis; and technical studies/ analysis of emerging technologies for possible NL application.			
Accomplishments/Planned Programs Subtotals	42.464	40.992	44.994

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

The JNLW Program strategy is to continue to pursue the fielding of NLW systems through modifying Commercial-Off-The-Shelf (COTS) products for near term capabilities and the development of new technology NLW systems in various stages of acquisition. These are balanced with efforts in modeling and simulation, experimentation, and state-of-the-art technology investment. The acquisition strategy for each weapon system is largely Lead Service dependent. The JNLWP provides RDT&E funding while the Services are responsible for procurement and operations and maintenance funding. For complex development programs, such as directed energy research, JNLWP RDT&E funds will augment each Service's RDT&E funding in support of joint applications.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603851M: Joint Non-Lethal Weapons

Testing

DATE: February 2012

PROJECT

2319: Non-Lethal Weapons

Product Development (\$ in Millio	ns)		FY 2	2012	FY 2 Ba	2013 se		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NLW Product Development	MIPR	ARDEC:Picatinny, NJ	41.188	5.311	Oct 2011	2.500	Oct 2012	-		2.500	0.000	48.999	
NLW Product Development	MIPR	SOCOM:McDill AFB, FL	14.177	2.000	Oct 2011	3.500	Oct 2012	-		3.500	0.000	19.677	
NLW Product Development	Various	NSWC:Various	19.155	2.941	Oct 2011	4.460	Oct 2012	-		4.460	0.000	26.556	
NLW Product Development	MIPR	USAF:Eglin AFB, FL	16.964	-		-		-		-	0.000	16.964	
NLW Product Development	MIPR	USAF:Kirtland AFB, NM	22.061	1.035	Oct 2011	1.500	Oct 2012	-		1.500	0.000	24.596	
NLW Product Development	MIPR	USAF:Brooks AFB, TX	44.123	5.500	Oct 2011	3.500	Oct 2012	-		3.500	0.000	53.123	
NLW Product Development	MIPR	JWCF:Fort Monroe, VA	12.157	-		-		-		-	0.000	12.157	
NLW Product Development	Various	MCSC:Quantico, VA	16.487	4.664	Oct 2011	5.000	Oct 2012	-		5.000	0.000	26.151	
NLW Product Development	MIPR	NSMA:Arlington, VA	24.277	-		-		-		-	0.000	24.277	
NLW Product Development	C/CPFF	MCLB:Albany, GA	8.316	-		-		-		-	0.000	8.316	
NLW Product Development	MIPR	M&S:Various	16.910	1.208	Oct 2011	1.500	Oct 2012	-		1.500	0.000	19.618	
NLW Product Development	Various	JIP:Various	12.512	0.600	Oct 2011	0.600	Oct 2012	-		0.600	0.000	13.712	
NLW Product Development	Various	Uniformed Services:Various	103.778	15.633	Oct 2011	18.733	Oct 2012	-		18.733	0.000	138.144	
		Subtotal	352.105	38.892		41.293		-		41.293	0.000	432.290	

Remarks

Navy

Joint Program funds are distributed amongst the USA, USAF, USN, USMC, SOCOM, and USCG in support of NLW research and development efforts. Each Cost Category Item does not correlate to an individual project/effort. They fund multiple non-lethal projects/efforts that are incrementally funded throughout the fiscal year as each service identifies the project/ effort requiring funding.

Support (\$ in Millions)		FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NLW Support Cost	WR	MCSC:Quantico, VA	10.871	-		-		-		-	0.000	10.871	
NLW Support Cost	WR	NSWC:Dahlgren, VA	12.998	1.400	Oct 2011	0.600	Oct 2012	-		0.600	0.000	14.998	
NLW Support Cost	Various	Various:Various	30.426	0.700	Oct 2011	3.101	Oct 2012	-		3.101	0.000	34.227	
		Subtotal	54.295	2.100		3.701		-		3.701	0.000	60.096	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603851M: Joint Non-Lethal Weapons

Testing

DATE: February 2012

2319: Non-Lethal Weapons

Test and Evaluation (\$ in Millions)				FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MPM T&E Cost	Various	Various:Various	3.553	-		-		-		-	0.000	3.553	
		Subtotal	3.553	-		-		-		-	0.000	3.553	
			Total Prior Years Cost	FY 2	2012	FY 2 Ba			2013 CO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	409.953	40.992		44.994		-		44.994	0.000	495.939	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy
BA 4: Advanced Component Development & Prototypes (ACD&P)

DATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0603851M: Joint Non-Lethal Weapons
Testing

PROJECT
2319: Non-Lethal Weapons

	FY 2011				FY 2012)	FY 2013			3	FY 2014			FY 2015				FY 2016				FY 2017			,	
	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
Proj 2319								,	,								,						,					
MISSION PAYLOAD MODULE (MPM) - MS B																												
MISSION PAYLOAD MODULE (MPM) - MS C																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

| 1319: Research, Development, Test & Evaluation, Navy | PE 0603851M: Joint Non-Lethal Weapons | 2319: Non-Lethal Weapons

BA 4: Advanced Component Development & Prototypes (ACD&P)

Testing

0 | | | | | | | | |

Schedule Details

	St	art	End			
Events by Sub Project	Quarter	Year	Quarter	Year		
Proj 2319		-				
MISSION PAYLOAD MODULE (MPM) - MS B	2	2011	1	2012		
MISSION PAYLOAD MODULE (MPM) - MS C	1	2012	1	2015		