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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	626.407	27.606	28.168	30.533	-	30.533	32.370	32.792	33.122	33.695	Continuing	Continuing
2319: <i>Non-Lethal Weapons</i>	626.407	27.606	28.168	30.533	-	30.533	32.370	32.792	33.122	33.695	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DoD Non-Lethal Weapons Program was established by the FY 1996 National Defense Authorization Act. The Office of the Secretary of Defense designated the Commandant of the Marine Corps (CMC) as the DoD NLW Executive Agent (EA). The EA exercises centralized responsibility for joint research and development of non-lethal weapons and technology through the Joint Non-Lethal Weapons Program (JNLWP). The Office of the Under Secretary of Defense for Acquisition and Sustainment serves as the OSD Principal Staff Assistant and oversees, in consultation with the Under Secretary of Defense for Policy, the DoD NLW Executive Agent.

The efforts described in this Program Element (PE) reflect Joint Service research and development (R&D) investment decisions by the Joint Non-Lethal Weapons Integrated Product Team, a multi-service flag level corporate board that provides executive oversight and management of the JNLWP for the EA. Research conducted is based on the requirements and capabilities sought by the Services and the Coast Guard, as identified in JROC-approved Joint Non-Lethal Effects Initial Capabilities Documents. This coordinated joint Research and Development approach addresses mutual capability gaps and assures the most relevant non-lethal technologies, capabilities and equipment are provided to the operating forces while eliminating duplicative Service investment. Advanced Component Development and Prototypes non-lethal weapons initiatives provide non-lethal capabilities in direct support of the National Defense Strategy (NDS) objective of strategic competition by providing options to the joint force in pursuit of national objectives in legal or policy constrained scenarios, as well as complementing the use of lethal effects in complex combat scenarios, for example, in urban environments with large civilian populations. Ongoing NLW studies, analyses and exercise efforts with NATO and Allies also support NDS objectives to strengthen alliances and partnerships. Resulting capabilities facilitate a fully integrated non-lethal competency as a complement to lethal firepower, providing force application options for below lethal threshold engagements.

This PE funds Joint Service research, development, test, and evaluation of non-lethal weapons, devices, munitions and technologies which provide a non-lethal capability to minimize significant injuries as well as undesired damage to property and the environment. Counter-personnel and counter-materiel capability investment areas include directed energy (lasers, millimeter wave and high power microwave), multi-sensory suppression/incapacitation initiatives (acoustics, optical, electro-muscular incapacitation), and other emergent technologies transitioning from coordinated JNLWP Science and Technology PE initiatives. Investments also focus on Joint and allied experimentation, exercise, demonstration and assessment of advanced component and prototype initiatives in order to assist transition of suitable and effective capabilities to both joint and allied operational applications.

The Joint Intermediate Force Capabilities Office JIFCO (formally Joint Non-Lethal Weapons Directorate) is designated as a R&D organization and was established by the EA to manage the day to day research and development activities of the DoD's JNLWP. Each Service is responsible for their procurement and operating support costs.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	28.435	29.589	0.000	-	0.000
Current President's Budget	27.606	28.168	30.533	-	30.533
Total Adjustments	-0.829	-1.421	30.533	-	30.533
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.421			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.265	0.000			
• SBIR/STTR Transfer	-1.094	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	30.533	-	30.533

Change Summary Explanation

Net increase of \$2.365M is primarily due to an increased investment in Joint and Allied Exercise, Experimentation, Demonstration and Assessment validation of Vessel Stopping Technology requirements by evaluating waterborne test data, and by conducting comprehensive parameter reviews via Warfighter workshops.

The FY 2023 funding request was adjusted by \$0.693M to account for the availability of prior year execution balances.

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>				Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2319: <i>Non-Lethal Weapons</i>	626.407	27.606	28.168	30.533	-	30.533	32.370	32.792	33.122	33.695	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops Non-Lethal Weapons (NLW) and intermediate force capabilities that minimize fatal or permanent injuries and undesired damage to property and the environment. These capabilities are designed to incapacitate or hinder movement of individuals, crowds or equipment. The availability of NLW allows commanders less lethal options across the range of military operations, 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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Counter-Personnel Advanced Component Development and Prototypes	5.253	4.914	8.638	0.000	8.638
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Initiate sound and light high intensity light evaluation.					
- Continue maturation of counter-personnel (CP) directed energy technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record.					
- Continue development of CP emerging technologies to support Service capability gaps and priorities as they support the Combatant Commanders.					
- Continue technology maturation and risk reduction of competing approaches to inform decisions for Service capability development.					
- Continue prototype development and assessment of advanced payloads for technological capabilities relevant to emerging counter-personnel capability gaps.					
- Continue coordination and requirements development for Service counter-personnel (CP) prototyping initiatives within the Joint Non-Lethal Weapons Program.					
- Continue Service-led CP intermediate force prototype initiatives.					
- Continue prototype development and demonstration for the most promising technologies employing multisensory stimuli.					
- Continue program management support for CP efforts.					
- Continue integration of current intermediate force capabilities into an established service platform for demonstration and prototyping purposes.					
- Continue sound and light acoustic technology evaluation.					

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>	Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Complete 9-Bang Acquisition Documentation and Approvals.</p> <p>FY 2023 Base Plans:</p> <ul style="list-style-type: none"> - Initiate Intermediate Force Capabilities Unmanned System Integration (IFCUSI) integration Initiate development of a ruggedized demonstrator, integrated onto an unmanned or autonomous platform, as appropriate, for identified stakeholders. - Initiate Integrated Base Defense (IBD) mature IFC integration into a containerized weapon system prototype demonstrator. - Continue maturation of counter-personnel (CP) directed energy technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record. - Continue development of CP emerging technologies to support Service capability gaps and priorities as they support the Combatant Commanders. - Continue technology maturation and risk reduction of competing approaches to inform decisions for Service capability development. - Continue prototype development and assessment of advanced payloads for technological capabilities relevant to emerging counter-personnel capability gaps. - Continue coordination and requirements development for Service counter-personnel (CP) prototyping initiatives within the Joint Non-Lethal Weapons Program. - Continue Service-led CP intermediate force prototype initiatives. - Continue prototype development and demonstration for the most promising technologies employing multisensory stimuli. - Continue program management support for CP efforts. - Continue integration of current intermediate force capabilities into an established service platform for demonstration and prototyping purposes. - Continue sound and light acoustic technology evaluation. - Completed sound and light high intensity light evaluation. - Complete Escalation of Force Common Remotely Operated Weapons Station (EoFCROWS), acceleration resulting in prototype demonstrator integration testing followed by decreases due to continued prototype demonstrator support. <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p>					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>	Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Increase of \$3.724M from FY 2022 to FY 2023 is due to investment in ruggedized Escalation of Force Common Remotely Operated Weapons Station (EoFCROWS), Integrated Base Defense (IBD) and Intermediate Force Capabilities Unmanned System Integration (IFCUSI) prototype development, testing, and integration onto manned, unmanned, or autonomous platforms, as appropriate for identified stakeholders.					
Title: Counter-Materiel Advanced Component Development and Prototypes FY 2022 Plans: <ul style="list-style-type: none"> - Continue advanced component development and prototyping support to the Department of the Navy's candidate Maritime Vessel Stopping capability. (Vessel Stopping Prototype) - Continue development of the conceptual design of non-lethal directed energy vessel-stopping capability, including electro-magnetic and engagement modeling, platform feasibility and integration studies, target characterization and validation. - Continue maturation of counter-materiel (CM) directed energy technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record. - Continue coordination and requirements development for Service CM prototyping initiatives within the Joint Non-Lethal Weapons Program. - Continue development and assessment of Service-led CM intermediate force prototype initiatives. - Continue maturation of CM directed energy technologies to increase system efficiencies such as reduce system size, weight and cost in preparation for transition to joint acquisition programs of record. - Continue the advanced development of CM emerging technologies to support Service capability gaps and priorities as they support the Combatant Commanders. - Continue technology maturation and risk reduction of competing approaches to inform decisions for Service capability development. - Continue prototype development and assessment of advanced payloads for technological capabilities relevant to emerging counter-materiel capability gaps. - Continue program management support for CM efforts. - Complete production qualification testing of a Service-endorsed pre-emplaced, counter-materiel vehicle stopping capability. 	16.180	13.961	10.100	0.000	10.100
Articles:	-	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Complete Vessel Incapacitating Power Effect Radiation (VIPER) critical design engineering and review, system safety development, Interim Interface Control Document and hardware design description, and operational assessment (OA) training material development.</p> <p>FY 2023 Base Plans:</p> <ul style="list-style-type: none"> - Initiate Vessel Stopping Prototype to conduct system Factory Acceptance Testing and comprehensive planning for waterborne requirements verification Government Acceptance Testing, and executing DoN major safety and regulatory milestones. - Continue advanced component development and prototyping support to the Department of the Navy's candidate Maritime Vessel Stopping capability. (Vessel Stopping Prototype) - Continue development of the conceptual design of non-lethal directed energy vessel-stopping capability, including electromagnetic and engagement modeling, platform feasibility and integration studies, target characterization and validation. - Continue maturation of counter-materiel (CM) directed energy technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record. - Continue coordination and requirements development for Service CM prototyping initiatives within the Joint Non-Lethal Weapons Program. - Continue development and assessment of Service-led CM intermediate force prototype initiatives. - Continue maturation of CM directed energy technologies to increase system efficiencies such as reduce system size, weight and cost in preparation for transition to joint acquisition programs of record. - Continue the advanced development of CM emerging technologies to support Service capability gaps and priorities as they support the Combatant Commanders. - Continue technology maturation and risk reduction of competing approaches to inform decisions for Service capability development. - Continue prototype development and assessment of advanced payloads for technological capabilities relevant to emerging counter-materiel capability gaps. - Continue program management support for CM efforts. <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p>					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Decrease of \$3.861M from FY 2022 to FY 2023 is due to comprehensive vendor down selection at the Preliminary Design Review phase, sole vendor awarded the continued development of the prototype system and hardware.					
Title: Joint and Allied Exercise, Experimentation, Demonstration and Assessment					
	6.173	9.293	11.795	0.000	11.795
Articles:	-	-	-	-	-
FY 2022 Plans:					
<ul style="list-style-type: none"> - Continue support to Combatant Commands (CCMDs) by demonstrating and assessing intermediate force capabilities in vessel interdiction and counter-migration exercises. Specifically, continue support to USEUCOM/ USAFRICOM through engagement with NATO's Maritime Interdiction Operations Training Center (MIOTC). - Continue modeling and simulation of intermediate force capabilities in warfighter training/gaming models and performance effects data collection/population to demonstrate/analyze non-lethal effects and support optimization of training. - Continue evaluation of intermediate force capabilities 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. - Continue engagement with NATO on cooperative security efforts, to include providing input for Systems Analysis and Studies (SAS) Panels and NATO assessment of intermediate force capabilities in appropriate allied scenarios and exercises. - Continue interaction with Combatant Commander Staffs to evaluate emerging intermediate force capabilities and their utility in theater operations and Defense of the Homeland missions. - Continue to assess the utility, effect, and effectiveness of technologies for incapacitating personnel, clearing facilities, stopping vehicles and vessels, and denying enemy access to protected areas. - Continue to identify, test, and evaluate newly developed commercial products that may meet Joint service requirements for specific non-lethal capability set common items. - Continue program management support for Joint and Allied Exercise, Experimentation, Demonstration and Assessment efforts. - Continue support of CCMDs by demonstrating and assessing intermediate force capabilities for multiple priority mission areas, such as port opening operations; Humanitarian Assistance and Disaster Relief, Counter-Transnational Organized Crime operations; and harbor and in-transit security operations. 					
FY 2023 Base Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Continue support to Combatant Commands (CCMDs) by demonstrating and assessing intermediate force capabilities in vessel interdiction and counter-migration exercises. Specifically, continue support to USEUCOM/USAFRICOM through engagement with NATO's Maritime Interdiction Operations Training Center (MIOTC).</p> <p>- Continue modeling and simulation of intermediate force capabilities in warfighter training/gaming models and performance effects data collection/population to demonstrate/analyze non-lethal effects and support optimization of training.</p> <p>- Continue evaluation of intermediate force capabilities 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.</p> <p>- Continue engagement with NATO on cooperative security efforts, to include providing input for Systems Analysis and Studies (SAS) Panels and NATO assessment of intermediate force capabilities in appropriate allied scenarios and exercises.</p> <p>- Continue interaction with Combatant Commander Staffs to evaluate emerging intermediate force capabilities and their utility in theater operations and Defense of the Homeland missions.</p> <p>- Continue to assess the utility, effect, and effectiveness of technologies for incapacitating personnel, clearing facilities, stopping vehicles and vessels, and denying enemy access to protected areas.</p> <p>- Continue to identify, test, and evaluate newly developed commercial products that may meet Joint service requirements for specific non-lethal capability set common items.</p> <p>- Continue program management support for Joint and Allied Exercise, Experimentation, Demonstration and Assessment efforts.</p> <p>- Continue support of CCMDs by demonstrating and assessing intermediate force capabilities for multiple priority mission areas, such as port opening operations; Humanitarian Assistance and Disaster Relief, Counter-Transnational Organized Crime operations; and harbor and in-transit security operations</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase of \$2.502 from FY 2022 to FY 2023 is due to an increase investment in Joint and Allied Exercise, Experimentation, Demonstration and Assessment validation of Vessel Stopping Technology requirements</p>					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>	Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
by evaluating waterborne test data, and by conducting comprehensive parameter reviews via Warfighter workshops.					
Accomplishments/Planned Programs Subtotals	27.606	28.168	30.533	0.000	30.533

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• RDTEN/0602651M/0000: <i>Joint Non-Lethal Weapons Applied Research</i>	6.150	6.405	6.700	-	6.700	7.419	8.090	8.345	8.512	Continuing	Continuing
• RDTEN/0603651M/3022: <i>Joint Non-Lethal Weapons Advanced Technology Development</i>	12.882	13.429	14.048	-	14.048	15.556	16.967	17.504	17.855	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Joint Non-Lethal Weapons (JNLW) program strategy is 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 state-of-the-art technology investment, experimentation, and modeling and simulation. The acquisition strategy for each weapon system is largely Lead Service dependent. For complex development programs, JNLWP RDT&E funding supports each Service's RDT&E joint application efforts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>	Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
NLW Product Development	MIPR	ARDEC : Picatinny, NJ	62.377	0.461	Oct 2020	0.708	Jan 2022	1.100	Jan 2023	-		1.100	Continuing	Continuing	Continuing
NLW Product Development	Various	NSWC : Various	63.265	8.312	Oct 2020	7.272	Dec 2021	9.269	Dec 2022	-		9.269	Continuing	Continuing	Continuing
NLW Product Development	MIPR	USAF : Ft. Sam Houston AFB, TX	60.462	0.265	Oct 2020	0.412	Jan 2022	0.000		-		0.000	Continuing	Continuing	Continuing
NLW Product Development	Various	MCSC : Quantico, VA	36.064	4.851	Oct 2020	4.640	Nov 2021	4.696	Nov 2022	-		4.696	Continuing	Continuing	Continuing
NLW Product Development	Various	Uniformed Services : Various	201.993	5.355	Oct 2020	5.493	Oct 2021	6.567	Oct 2022	-		6.567	Continuing	Continuing	Continuing
Prior Year NLW Product Development	Various	Various : Various	91.741	0.000		0.000		0.000		-		0.000	0.000	91.741	-
Subtotal			515.902	19.244		18.525		21.632		-		21.632	Continuing	Continuing	N/A

Remarks
 Joint Program funds are prioritized and provided to 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 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
NLW Support Cost	WR	NSWC : Dahlgren, VA	19.361	0.268	Oct 2020	1.121	Nov 2021	0.277	Nov 2022	-		0.277	Continuing	Continuing	Continuing
Subtotal			19.361	0.268		1.121		0.277		-		0.277	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
JNLW Management Support	Various	MCSC : Quantico, VA	50.423	8.094	Oct 2020	8.522	Oct 2021	8.624	Oct 2022	-		8.624	Continuing	Continuing	Continuing
Prior Year Management Services	Various	Various : Various	40.721	0.000		0.000		0.000		-		0.000	0.000	40.721	-
Subtotal			91.144	8.094		8.522		8.624		-		8.624	Continuing	Continuing	N/A

Remarks
The JNLW Management Support was previously incorporated into the various cost categories instead of being displayed in the corresponding section of the R-3. The Management Services section of the R-3 now reflects the amounts for civilian salaries and contractor program management. The funding fluctuates across the R-2A categories based on the demand signals of the Services, USSOCOM, and the USCG.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	626.407	27.606	28.168	30.533	-	30.533	Continuing	Continuing	N/A

Remarks
Joint Program funds are prioritized and provided to 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.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy

Date: April 2022

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0603851M / Joint Non-Lethal Weapons
Testing

Project (Number/Name)
2319 / Non-Lethal Weapons



MARINE CORPS SYSTEMS COMMAND
Equipping our MARINES

DoD Non-Lethal Weapons Program – Executive Agent (EA) Joint Non-Lethal Weapons Program (JNLWP)

	FY21	FY22	FY23	FY24	FY25	FY26	FY27
EA Guidance							
Executive Meetings		◆	◆	◆	◆	◆	◆
DOTMLPF-P Activities	JPME Electives Resident / Non-Resident	Joint & Allied Publication Reviews ~25 per FY	JPME Electives Resident / Non-Resident Joint & Allied Publication Reviews ~25 per FY	JPME Electives Resident / Non-Resident Joint & Allied Publication Reviews ~25 per FY	JPME Electives Resident / Non-Resident Joint & Allied Publication Reviews ~25 per FY	JPME Electives Resident / Non-Resident Joint & Allied Publication Reviews ~25 per FY	JPME Electives Resident / Non-Resident Joint & Allied Publication Reviews ~25 per FY
Acquisition Program Milestones	81mm Flash Bang Grenade ▲ CCB LROI FD ▲		12 GA ERNLM FMR ▲				
Projected Service Fieldings (IOC)	Lead Free Trainer F&DR ▲ LROI ▲	81mm Flash Bang Grenade ▲	12GA ERNLM ▲ 9 Bang FBM F&DR ▲ 40mm RCDR F&DR ▲ 40mm RCDR F&DR ▲				
Pilot Programs / Rapid Prototyping					EoF CROWS Demonstrator (Acoustics, Laser & Light) ▲ VIPER OUA	IBD CWS Demonstrator ▲	
Exercises, Expr., Demonstration & Assessments	VIPER WW/TX VIPER WW/TX VIPER WW/TX	VIPER WW/TX CIP MJA CNMOTC NL Curriculum TTX NINTEX-21	CCMD TTX INDO PACOM Exer.	LR RFVEH & M/SOT Demo RF Vessel Demo CCMD Exercise IFC Summit	SS-ADT Demo RF Vessel Demo CCMD Exercise	UXS Demo CCMD Exercise IFC Summit	RF Vessel Demo CCMD Exercise
JNLWP Technology Development and/or Demonstrators	IPRM Cartridge Testing Next Gen LIFE	POT Testing Prototype Development	RF VESSEL Prototype Fabrication	Prototype Enhancement - SWAP	Small Payload Optimization / Testing	Larger Payload Optimization / Testing	
			Modular Waveform Source Optimization Go/No Go Decision	HEMI Multi-Target Source Integration	Munition Optimization - Single Target	Munition Optimization - Multi Target	
			CDR Long Range Source Fabrication	Prototype Enhancement - SWAP	Solid-State / Short Pulse Source Development		
			SS-ADT	Module Prototype	System Prototype Fabrication		
Human Effects	Auditory Impulse Noise S&V Integration Blunt Impact EndioEnd Model Delivery	Flashbang EndioEnd Animal Model Study Exp. Integration	ADR EndioEnd Model	Human Effects War gaming Integration	HEMI End-to-End Model Integration	Applied research efforts for auditory and overpressure	HEMI Component Subsystem V&V

Lead Agency

- ▲ USMC
- ▲ USN
- ▲ USSOCOM
- ▲ USA
- ▲ USAF
- ▲ USCG
- ▲ JIFCO Led

EoF CROWS – Evolution of Force Common Remotely Operated Weapons Station
 ERNLM – Extended Range Non-Lethal Munition
 FBM – Flash Bang Munition
 HEMI – Human Electro-muscular Inactivation Technology
 HPR Actv – High Peak-power Radio-Frequency Assessment and Capability
 IFC – Intermediate Force Capabilities
 JIFCO – Joint Intermediate Force Capabilities Office/DoD NLW Program
 M/SOT – Maritime Vessel Stopping Occlusion Technology
 RF Vehicle – Radio Frequency Vehicle Stopping Technology
 RF Vessel – Radio Frequency Vessel Stopping Technology
 SS-ADT – Solid State Active Denial Technology

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603851M / <i>Joint Non-Lethal Weapons Testing</i>	Project (Number/Name) 2319 / <i>Non-Lethal Weapons</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2319				
Counter Vessel: Vessel Stopping Prototype (VSP) Technology Development: Critical Design Review	2	2022	2	2022
RFVS: Radio Frequency Vehicle Stopping (RFVS) Technology Development: CDR	3	2023	3	2023
Counter Materiel: 40mm Door Breach NL Round: F&DR	4	2023	4	2023
12 Gauge Extended Range Non-Lethal (12GA ERNL): IOC	4	2023	4	2023
9 Bang: F&DR	4	2023	4	2023