Department of Defense
Fiscal Year (FY) 2021 Budget Estimates

February 2020

Navy

Justification Book Volume 1 of 1

Procurement of Ammo, Navy & MC

The estimated cost of this report for the Department of the Navy (DON) is $41,661.

The estimated total cost for supporting the DON budget justification material is approximately $2,970,459 for the 2020 fiscal year. This includes $82,977 in supplies and $2,887,482 in labor.

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Procurement of Ammunition, Navy and Marine Corps

For construction, procurement, production, and modification of ammunition, and accessories therefor; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities, authorized by section 2854 of title 10, United States Code, and the land necessary therefor, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, $979,544,000 to remain available for obligation until September 30, 2023.

FY 2021 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs ($95,942,000): Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.

- OCO for Enduring Requirements ($0): OCO for Enduring Requirements are enduring in-theater and in-CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.

- OCO for Base Requirements ($0): OCO for Base Requirements is OCO funding for base budget requirements in support of the National Defense Strategy. The Budget requests these funds in OCO to comply with the base budget defense caps included in the Budget Control Act of 2011.

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Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
Procurement of Ammo, Navy & MC	1,182,464	843,401		204,814
Total Department of the Navy	1,182,464	843,401		204,814

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation	FY 2020 Total Enacted (Base+Emerg+ OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
Procurement of Ammo, Navy & MC	1,048,215	883,602		95,942
Total Department of the Navy	1,048,215	883,602		95,942

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
Procurement of Ammo, Navy & MC	95,942	979,544
Total Department of the Navy	95,942	979,544

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: Procurement of Ammo, Navy & MC

Budget Activity	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
01. Proc Ammo, Navy	877,262	406,469		166,542
02. Proc Ammo, MC	305,202	436,932		38,272
Total Procurement of Ammo, Navy & MC	1,182,464	843,401		204,814

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: Procurement of Ammo, Navy & MC

Budget Activity	FY 2020 Total Enacted (Base+Emerg+ OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
01. Proc Ammo, Navy	573,011	522,622		95,942
02. Proc Ammo, MC	475,204	360,980		
Total Procurement of Ammo, Navy & MC	1,048,215	883,602		95,942

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: Procurement of Ammo, Navy & MC

Budget Activity	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
01. Proc Ammo, Navy	95,942	618,564
02. Proc Ammo, MC		360,980
Total Procurement of Ammo, Navy & MC	95,942	979,544

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO) Quantity	FY 2019 (Base + OCO) Cost	FY 2020 Base Enacted Quantity	FY 2020 Base Enacted Cost	FY 2020 Emergency Quantity	FY 2020 Emergency Cost	FY 2020 OCO Enacted Quantity	FY 2020 OCO Enacted Cost	Sec
Budget Activity 01: Proc Ammo, Navy											
	Navy Ammunition										
1	General Purpose Bombs	A		106,138		19,521				26,978	U
2	JDAM	B	8742	180,919	2844	62,978			544	12,263	U
3	Airborne Rockets, All Types	A		137,985		23,922				45,020	U
4	Machine Gun Ammunition	A		16,344		4,793				33,577	U
5	Practice Bombs	A		43,971		31,036				11,903	U
6	Cartridges & Cart Actuated Devices	A		64,056		37,860				15,081	U
7	Air Expendable Countermeasures	A		102,962		70,099				16,911	U
8	JATOS	A		3,654		7,262					U
9	5 Inch/54 Gun Ammunition	A		70,058		19,161					U
10	Intermediate Caliber Gun Ammunition	A		38,151		37,193					U
11	Other Ship Gun Ammunition	A		44,680		33,066				3,262	U
12	Small Arms & Landing Party Ammo	A		43,888		47,896				1,010	U
13	Pyrotechnic and Demolition	A		12,738		10,621				537	U
14	Cancelled Account Adjustments (87)	A		10,612							U
15	Ammunition Less Than $5 Million	A		1,106		1,061					U
Total Proc Ammo, Navy				877,262		406,469				166,542	

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+ OCO) Quantity	FY 2020 Total Enacted (Base+Emerg+ OCO) Cost	FY 2021 Base Quantity	FY 2021 Base Cost	FY 2021 OCO for Base Requirements Quantity	FY 2021 OCO for Base Requirements Cost	FY 2021 OCO for Direct War and Enduring Costs Quantity	FY 2021 OCO for Direct War and Enduring Costs Cost	Sec
Budget Activity 01: Proc Ammo, Navy											
Navy Ammunition											
1	General Purpose Bombs	A		46,499		41,496				8,068	U
2	JDAM	B	3388	75,241	2865	64,631			673	15,529	U
3	Airborne Rockets, All Types	A		68,942		60,719				23,000	U
4	Machine Gun Ammunition	A		38,370		11,158				22,600	U
5	Practice Bombs	A		42,939		51,409					U
6	Cartridges & Cart Actuated Devices	A		52,941		64,694				3,927	U
7	Air Expendable Countermeasures	A		87,010		51,523				15,978	U
8	JATOS	A		7,262		6,761				2,100	U
9	5 Inch/54 Gun Ammunition	A		19,161		31,517					U
10	Intermediate Caliber Gun Ammunition	A		37,193		38,005					U
11	Other Ship Gun Ammunition	A		36,328		40,626				2,611	U
12	Small Arms & Landing Party Ammo	A		48,906		48,202				1,624	U
13	Pyrotechnic and Demolition	A		11,158		9,766				505	U
14	Cancelled Account Adjustments (87)	A									U
15	Ammunition Less Than $5 Million	A		1,061		2,115					U
Total Proc Ammo, Navy				573,011		522,622				95,942	

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO Quantity	FY 2021 Total OCO Cost	FY 2021 Total (Base + OCO) Quantity	FY 2021 Total (Base + OCO) Cost	Sec
Budget Activity 01: Proc Ammo, Navy							
Navy Ammunition							
1	General Purpose Bombs	A		8,068		49,564	U
2	JDAM	B	673	15,529	3538	80,160	U
3	Airborne Rockets, All Types	A		23,000		83,719	U
4	Machine Gun Ammunition	A		22,600		33,758	U
5	Practice Bombs	A				51,409	U
6	Cartridges & Cart Actuated Devices	A		3,927		68,621	U
7	Air Expendable Countermeasures	A		15,978		67,501	U
8	JATOS	A		2,100		8,861	U
9	5 Inch/54 Gun Ammunition	A				31,517	U
10	Intermediate Caliber Gun Ammunition	A				38,005	U
11	Other Ship Gun Ammunition	A		2,611		43,237	U
12	Small Arms & Landing Party Ammo	A		1,624		49,826	U
13	Pyrotechnic and Demolition	A		505		10,271	U
14	Cancelled Account Adjustments (87)	A					U
15	Ammunition Less Than $5 Million	A				2,115	U
Total Proc Ammo, Navy				95,942		618,564	

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO) Quantity	FY 2019 (Base + OCO) Cost	FY 2020 Base Enacted Quantity	FY 2020 Base Enacted Cost	FY 2020 Emergency Quantity	FY 2020 Emergency Cost	FY 2020 OCO Enacted Quantity	FY 2020 OCO Enacted Cost	Sec
Budget Activity 02: Proc Ammo, MC											
	Marine Corps Ammunition										
16	Mortars	A		20,534		55,543				1,930	U
17	Direct Support Munitions	A		62,631		100,906				1,172	U
18	Infantry Weapons Ammunition	A		55,474		52,088				2,158	U
19	Combat Support Munitions	A		31,741		33,995				965	U
20	Ammo Modernization	A		15,001		14,325					U
21	Artillery Munitions	A		113,582		175,554				32,047	U
22	Items Less Than $5 Million	A		6,239		4,521					U
Total Proc Ammo, MC				305,202		436,932				38,272	
Total Procurement of Ammo, Navy & MC				1,182,464		843,401				204,814	

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+ OCO) Quantity	FY 2020 Total Enacted (Base+Emerg+ OCO) Cost	FY 2021 Base Quantity	FY 2021 Base Cost	FY 2021 OCO for Base Requirements Quantity	FY 2021 OCO for Base Requirements Cost	FY 2021 OCO for Direct War and Enduring Costs Quantity	FY 2021 OCO for Direct War and Enduring Costs Cost	Sec
Budget Activity 02: Proc Ammo, MC											
	Marine Corps Ammunition										
16	Mortars	A		57,473		46,781					U
17	Direct Support Munitions	A		102,078		119,504					U
18	Infantry Weapons Ammunition	A		54,246		83,220					U
19	Combat Support Munitions	A		34,960		32,650					U
20	Ammo Modernization	A		14,325		15,144					U
21	Artillery Munitions	A		207,601		59,539					U
22	Items Less Than $5 Million	A		4,521		4,142					U
Total Proc Ammo, MC				475,204		360,980					
Total Procurement of Ammo, Navy & MC				1,048,215		883,602				95,942	

Department of the Navy
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1508N Procurement of Ammo, Navy & MC

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO Quantity	FY 2021 Total OCO Cost	FY 2021 Total (Base + OCO) Quantity	FY 2021 Total (Base + OCO) Cost	Sec
Budget Activity 02: Proc Ammo, MC							
	Marine Corps Ammunition						
16	Mortars	A				46,781	U
17	Direct Support Munitions	A				119,504	U
18	Infantry Weapons Ammunition	A				83,220	U
19	Combat Support Munitions	A				32,650	U
20	Ammo Modernization	A				15,144	U
21	Artillery Munitions	A				59,539	U
22	Items Less Than $5 Million	A				4,142	U
Total Proc Ammo, MC						360,980	
Total Procurement of Ammo, Navy & MC				95,942		979,544	

Line Item Table of Contents (by Appropriation then Line Number)

Appropriation 1508N: Procurement of Ammo, Navy & MC

Line #	BA	BSA	Line Item Number	Line Item Title	Page
1	01	01	0145	General Purpose Bombs	Volume 1 - 1
2	01	01	0148	JT Direct Attack Munition (JDAM)	Volume 1 - 17
3	01	01	0151	Airborne Rockets, All Types	Volume 1 - 27
4	01	01	0155	Machine Gun Ammunition	Volume 1 - 41
5	01	01	0160	Practice Bombs	Volume 1 - 53
6	01	01	0180	Cartridge Actuated Devices/Propellant Act Devices	Volume 1 - 67
7	01	01	0182	Air Expendable Countermeasures	Volume 1 - 83
8	01	01	0194	Jet Assisted Take Off (JATOs)	Volume 1 - 99
9	01	01	0250	5 Inch/54 Gun Ammunition	Volume 1 - 107
10	01	01	0266	Intermediate Caliber Gun Ammo	Volume 1 - 119
11	01	01	0270	Other Ship Gun Ammunition	Volume 1 - 131
12	01	01	0335	Small Arms & Lndg Party Ammo	Volume 1 - 155
13	01	01	0340	Pyrotechnic and Demolition	Volume 1 - 193
15	01	01	0400	Ammunition less than $5 million	Volume 1 - 211

Appropriation 1508N: Procurement of Ammo, Navy & MC

Line #	BA	BSA	Line Item Number	Line Item Title	Page
16	02	01	1085	Mortars	Volume 1 - 219
17	02	01	1125	Direct Support Munitions	Volume 1 - 235
18	02	01	1350	Infantry Weapons Ammunition	Volume 1 - 261
19	02	01	1550	Combat Support Munitions	Volume 1 - 293
20	02	01	1630	Ammo Modernization	Volume 1 - 321
21	02	01	1650	Artillery Munitions	Volume 1 - 325
22	02	01	1660	Items less than $5 million	Volume 1 - 347

Line Item Table of Contents (Alphabetically by Line Item Title)

Line Item Title	Line Item Number	Line #	BA	BSA	Page
5 Inch/54 Gun Ammunition	0250	9	01	01	Volume 1 - 107
Air Expendable Countermeasures	0182	7	01	01	Volume 1 - 83
Airborne Rockets, All Types	0151	3	01	01	Volume 1 - 27
Ammo Modernization	1630	20	02	01	Volume 1 - 321
Ammunition less than $5 million	0400	15	01	01	Volume 1 - 211
Artillery Munitions	1650	21	02	01	Volume 1 - 325
Cartridge Actuated Devices/Propellant Act Devices	0180	6	01	01	Volume 1 - 67
Combat Support Munitions	1550	19	02	01	Volume 1 - 293
Direct Support Munitions	1125	17	02	01	Volume 1 - 235
General Purpose Bombs	0145	1	01	01	Volume 1 - 1
Infantry Weapons Ammunition	1350	18	02	01	Volume 1 - 261
Intermediate Caliber Gun Ammo	0266	10	01	01	Volume 1 - 119
Items less than $5 million	1660	22	02	01	Volume 1 - 347
JT Direct Attack Munition (JDAM)	0148	2	01	01	Volume 1 - 17
Jet Assisted Take Off (JATOs)	0194	8	01	01	Volume 1 - 99
Machine Gun Ammunition	0155	4	01	01	Volume 1 - 41
Mortars	1085	16	02	01	Volume 1 - 219

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Other Ship Gun Ammunition	0270	11	01	01	Volume 1 - 131
Practice Bombs	0160	5	01	01	Volume 1 - 53
Pyrotechnic and Demolition	0340	13	01	01	Volume 1 - 193
Small Arms & Lndg Party Ammo	0335	12	01	01	Volume 1 - 155

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,552.330	106.138	46.499	41.496	8.068	49.564	46.648	45.763	44.886	45.781	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,552.330	106.138	46.499	41.496	8.068	49.564	46.648	45.763	44.886	45.781	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,552.330**	**106.138**	**46.499**	**41.496**	**8.068**	**49.564**	**46.648**	**45.763**	**44.886**	**45.781**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The General Purpose (GP) bombs budget sustains munition component inventory levels as defined in the Navy Munitions Requirement Process (NMRP) model. This model produces inventory requirements based on fleet operational scenarios and the number of weapons required to engage defined target sets. The budget also procures on-going technology integration to optimize the production and capability of products within the Direct Attack Weapons (DAW) portfolio. Inventory levels fluctuate year to year based on changes to the model as tactical targets are reassessed and weapons are expended in tactical operations and training. This variable requirement is assessed and a mean average is used to buffer out the most extreme changes.

The GP Bombs Budget procures several different categories of munition components. The bomb bodies procured vary in size, construction and explosive fill to provide the desired effect when employed against their targets. The fuzes, aero components, sensors and guidance kits procured provide a variety of detonation options for optimal lethality and flight control options to deliver the weapon to its intended target. A family of fuzes, when installed into the weapon, provides a controlled initiation of the explosive fill when commanded through impact with a target or at a predetermined time. This predetermined time may occur above the ground for a detonation above the target or below the ground after impact to engage deeply buried hardened targets. A basic fixed fin stabilizes the bomb and allows the weapon to travel on a ballistic line of fall as controlled by forward movement imparted by the aircraft and gravity. Laser guided components control the fall of the bomb using movable surfaces and a laser-detecting device to guide the bomb to a location on the ground illuminated by a laser designator.

There is also funding included in this budget to address a myriad of subcomponents that are used in the assembly of the various weapon configurations, including arming wires, adapters, lugs, nose plugs, aero surfaces, mechanical interfaces, cables and other components required for All Up Round (AUR) configurations. Lastly, this budget funds production engineering, integrated logistics, and product improvement efforts to sustain production and ongoing enhancements to ensure the weapons remain relevant in the environments they are used.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / GP Bomb	P-5a, P-21			- / 2,552.330	- / 106.138	- / 46.499	- / 41.496	- / 8.068	- / 49.564
P-40	**Total Gross/Weapon System Cost**				**- / 2,552.330**	**- / 106.138**	**- / 46.499**	**- / 41.496**	**- / 8.068**	**- / 49.564**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
This budget supports critical Navy Title 10 war reserve/operational, training and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and OPNAV INST 8011.9 (Navy Munitions Requirements Process). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces. Test requirements support the verification, fielding, safety and quality assurance of Navy weapons and equipment throughout their life cycle.

FY 2021 baseline funding is required to meet Naval Munitions Requirements Process (NMRP) inventory requirements. This model produces inventory requirements based on fleet operational scenarios and the number of weapons required to engage defined target sets. The budget also procures on-going technology integration to optimize the production and capability of products within the Direct Attack Weapons (DAW) portfolio. Inventory requirements fluctuate year to year based on changes to the model as tactical targets are reassessed and weapons are expended in tactical operations and training. This variable requirement is assessed and a mean average is used buffer out the most extreme changes.

Annual Non-Combat Expenditure Allowance (NCEA) prepares Naval Aviation units for deployment and is the largest cause of current and future General Purpose (GP) bombs procurement. NCEA utilization of GP bombs in support of Fleet readiness continues every year. Procurements are primarily designed to replenish the weapons used each year to achieve required readiness levels. Unlike procurement of capital assets, a large percentage of GP weapons are consumed in annual fleet training expenditures; thereby, reducing the ability to simply adjust procurements a year in response to budget reductions. Barring a reduction in fleet training expenditures and the correlating readiness degradation, any reductions in GP bombs procurements in a given year will have to be addressed with increased procurements in the out years to restore inventory to a level adequate to support NCEA and fleet readiness.

Efforts within this program support JEON PC-0012 Advanced Mining.

OCO:
FY 2021 Direct War (OCO) funding request in the amount of $8.068M is required to replenish bomb components that were expended in direct support of combat operations in theater. These operations are in support of Operation Inherent Resolve.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0145 / General Purpose Bombs	Item Number / Title [DODIC]: 1 / GP Bomb
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,552.330	106.138	46.499	41.496	8.068	49.564
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,552.330	106.138	46.499	41.496	8.068	49.564
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,552.330**	**106.138**	**46.499**	**41.496**	**8.068**	**49.564**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
1.1.1) Q2191 BLU-111(†) (1)	4,580.82	13,326	61.044	-	-	-	-	-	-	-	-	0.000	6,244.44	466	2.910	6,244.44	466	2.910
1.1.2) Q2192 BLU-110(†) (2)	9,900.42	944	9.346	9,477.09	1,593	15.097	9,666.63	309	2.987	9,668.00	239	2.311	9,668.00	194	1.876	9,668.00	433	4.187
1.1.3) Q2199 BLU-109(†) (3)	29,650.97	1,656	49.102	31,074.30	77	2.393	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) Q2160 BLU-117(†) (4)	-	-	-	15,809.53	269	4.253	25,020.01	75	1.876	-	-	0.000	25,520.40	6	0.153	25,520.40	6	0.153
1.1.5) Q2011 BSU-33 Con Fin(†) (5)	-	-	-	233.93	6,500	1.521	237.44	6,500	1.543	252.78	4,000	1.011	-	-	-	252.78	4,000	1.011
1.1.6) Q2193 BLU-126(†) (6)	-	-	-	9,893.33	1,090	10.784	10,079.36	437	4.405	10,272.86	54	0.555	10,272.86	15	0.154	10,272.86	69	0.709
Subtotal: Recurring Cost	-	-	*119.492*	-	-	*34.048*	-	-	*10.811*	-	-	*3.877*	-	-	*5.093*	-	-	*8.970*
Subtotal: Hardware Cost	**-**	**-**	***119.492***	**-**	**-**	***34.048***	**-**	**-**	***10.811***	**-**	**-**	***3.877***	**-**	**-**	***5.093***	**-**	**-**	***8.970***
Hardware - Guided Bombs Cost Cost																		
Recurring Cost																		
2.1.1) Q2230 GBU-49 Precision Kit(†) (7)	44,590.00	300	13.377	45,635.00	59	2.692	-	-	-	-	-	-	-	-	-	-	-	-
2.1.2) Q2200 Laser Capability DSU-38(†)	12,591.21	11,172	140.669	11,663.00	276	3.219	14,486.00	104	1.507	-	-	0.000	14,775.72	71	1.049	14,775.72	71	1.049

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0145 / General Purpose Bombs	Item Number / Title [DODIC]: 1 / GP Bomb
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.3) Q2220 Laser Capability DSU-42(†)	-	-	-	17,489.00	750	13.117	16,979.32	505	8.575	17,318.90	325	5.629	-	-	-	17,318.90	325	5.629
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)(†)	10,712.67	1,942	20.804	-	-	-	9,024.42	676	6.101	9,204.90	250	2.301	9,204.90	4	0.037	9,204.90	254	2.338
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)(†)	49,657.84	529	26.269	-	-	-	9,024.42	676	6.101	9,204.90	250	2.301	9,204.90	4	0.037	9,204.90	254	2.338
2.1.6) Q2187 Laser Guided Bombs AFG(†)	4,440.62	2,787	12.376	-	-	-	4,893.00	1,352	6.615	4,990.00	500	2.495	4,990.00	8	0.040	4,990.00	508	2.535
2.1.7) Q2197 Bombs Subcomponents (8)	-	-	7.215	-	-	2.102	-	-	0.195	-	-	1.261	-	-	0.122	-	-	1.383
Subtotal: Recurring Cost	-	-	*220.710*	-	-	*21.130*	-	-	*29.094*	-	-	*13.987*	-	-	*1.285*	-	-	*15.272*
Non Recurring Cost																		
2.2.1) Q2897 GBU-49 Precision Kit Non-Recurring	-	-	0.343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2.2) Q2895 DSU-42 Laser Capability Non Recurring	-	-	41.576	-	-	0.948	-	-	-	-	-	-	-	-	-	-	-	-
2.2.3) Q2899 - NRE - JDAM QS-ER (9)	-	-	-	-	-	-	-	-	-	-	-	1.750	-	-	-	-	-	1.750
Subtotal: Non Recurring Cost	-	-	*41.919*	-	-	*0.948*	-	-	-	-	-	*1.750*	-	-	-	-	-	*1.750*
Subtotal: Hardware - Guided Bombs Cost Cost	**-**	**-**	***262.629***	**-**	**-**	***22.078***	**-**	**-**	***29.094***	**-**	**-**	***15.737***	**-**	**-**	***1.285***	**-**	**-**	***17.022***
Hardware - Fuzes Cost Cost																		
Recurring Cost																		
3.1.1) Q2032 FMU-139 Electrical Fuze(†) (10)	1,449.04	59,640	86.421	2,866.89	13,335	38.230	-	-	-	2,249.63	6,840	15.387	2,249.63	681	1.532	2,249.63	7,521	16.919
Subtotal: Recurring Cost	-	-	*86.421*	-	-	*38.230*	-	-	-	-	-	*15.387*	-	-	*1.532*	-	-	*16.919*
Non Recurring Cost																		
3.2.1) Q2896 FUZE Non Recurring	-	-	47.601	-	-	1.573	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*47.601*	-	-	*1.573*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Fuzes Cost Cost	**-**	**-**	***134.022***	**-**	**-**	***39.803***	**-**	**-**	**-**	**-**	**-**	***15.387***	**-**	**-**	***1.532***	**-**	**-**	***16.919***

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0145 / General Purpose Bombs	Item Number / Title [DODIC]: 1 / GP Bomb
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - Prior Years Cost																		
Non Recurring Cost																		
4.1.1) Prior Years Cumulative Funding	-	-	1,917.915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*1,917.915*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Prior Years Cost	**-**	**-**	***1,917.915***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Integrated Logistics Cost																		
5.1) Q2800 GP Bombs	-	-	2.147	-	-	0.354	-	-	0.249	-	-	0.240	-	-	-	-	-	0.240
5.2) Q2800 Guided Bombs	-	-	3.208	-	-	0.478	-	-	0.068	-	-	0.068	-	-	-	-	-	0.068
5.3) Q2800 Fuzes	-	-	2.552	-	-	0.523	-	-	0.417	-	-	0.401	-	-	-	-	-	0.401
Subtotal: Support - Integrated Logistics Cost	**-**	**-**	***7.907***	**-**	**-**	***1.355***	**-**	**-**	***0.734***	**-**	**-**	***0.709***	**-**	**-**	**-**	**-**	**-**	***0.709***
Support - Production Engineering Cost																		
6.1) Q2830 GP Bombs	-	-	24.223	-	-	3.105	-	-	2.042	-	-	1.852	-	-	0.104	-	-	1.956
6.2) Q2830 Guided Bombs	-	-	35.554	-	-	1.543	-	-	0.842	-	-	0.706	-	-	0.023	-	-	0.729
6.3) Q2830 Fuzes	-	-	25.102	-	-	2.885	-	-	2.180	-	-	2.161	-	-	0.031	-	-	2.192
Subtotal: Support - Production Engineering Cost	**-**	**-**	***84.879***	**-**	**-**	***7.533***	**-**	**-**	***5.064***	**-**	**-**	***4.719***	**-**	**-**	***0.158***	**-**	**-**	***4.877***
Support - Miscellaneous Support Cost																		
7.1) Q2850 Product Improvement Program (PIP) (11)	-	-	19.350	-	-	0.616	-	-	0.273	-	-	0.314	-	-	-	-	-	0.314
7.2) Q2892 Non-Standard Items (12)	-	-	2.049	-	-	0.176	-	-	0.255	-	-	0.252	-	-	-	-	-	0.252
7.3) Q2893 Remanufacture Components (13)	-	-	1.959	-	-	0.229	-	-	-	-	-	0.233	-	-	-	-	-	0.233
7.4) Q2894 Gaging (14)	-	-	2.128	-	-	0.300	-	-	0.268	-	-	0.268	-	-	-	-	-	0.268
Subtotal: Support - Miscellaneous Support Cost	**-**	**-**	***25.486***	**-**	**-**	***1.321***	**-**	**-**	***0.796***	**-**	**-**	***1.067***	**-**	**-**	**-**	**-**	**-**	***1.067***
Gross/Weapon System Cost	**-**	**-**	**2,552.330**	**-**	**-**	**106.138**	**-**	**-**	**46.499**	**-**	**-**	**41.496**	**-**	**-**	**8.068**	**-**	**-**	**49.564**

(†) indicates the presence of a P-5a

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Footnotes:

(1) Q2191 BLU-111 is a 500 lb. general purpose bomb body.

(2) Q2192 BLU-110 is a 1000 lb. general purpose bomb body.

(3) Q2199 BLU-109 is a 2000 lb. hard target penetrator bomb body.

(4) Q2160 BLU-117 is a 2000 lb. general purpose bomb body. The FY 2019 unit price reflects the cost for partial components and is NOT reflective of an all-up-round. FY 2020 & FY 2021 unit prices are reflective of an all-up-round.

(5) Q2011 BSU-33 is a required inventory item necessary to complete end item configurations of the unguided Free Fall General Purpose Bomb. Reduction in quantities will result in a higher unit cost due to less efficient economies of scale and contractual negotiated pricing bands.

(6) Q2193 The BLU-126 is a low collateral damage bomb body.

(7) Q2230 GBU-49 was identified by USMC as a Direct Attack Moving Target weapon for the F-35B in support of Marine Expeditionary Unit Deployment.

(8) Q2197 Bomb sub-components (MXU-735, Lanyards, Lugs, M72; M73; M74 cables, FUZE accessory kits, miscellaneous hardware) procured out of this are required for assembly of BLU-109, BLU-110, BLU-111 and BLU-126 bomb bodies into end item configuration weapons such as Free fall unguided bombs, and Laser Guided Bombs (LGB). FY 2021 Q2197 procurement and increase resumes planned procurements to meet Fleet projections.

(9) Funding supports NAVSEA's Quick Strike Extended Range mine employment.

(10) Q2032 FMU-139 D/B is a cockpit programmable digital general purpose fuze with a hardened target capability in line with the National Defense Strategy's requirement for a more lethal force.

(11) Q2850 Product Improvement Program (PIP) includes improvements to products and processes related to the production of GP Bombs to include, but are not limited to, shipping caps, set screws, thermal coat, bomb liner and tuff seal. Universal Armament Interface (UAI) updates incorporated in the fuze and guided bomb components. Also includes Insensitive Munitions (IM) compliance and improvements to products and processes related to the production of GP Bombs.

(12) Q2892 Non-Standard Items procured out of this are Control Surfaces, Bands, Strakes, Aero Panels, Dunnage and Packaging required to support General Purpose Bomb All-Up-Round (AUR) configurations.

(13) Q2893 funding is required for labor and materials associated with remanufacturing actions on GPBombs and related components in order to extend current inventory stores.

(14) Gaging funding is required for materials and labor for calibration and recertification of gauges necessary to support GPB production.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Q2191 BLU-111		2017	General Dynamics BLU-111 / Garland, TX/MCAAP	C / FP	JMC Rock Island, IL	May 2017	May 2020	1,096	5,765.84	Y		Jun 2014
1.1.1) Q2191 BLU-111	✓	2018	General Dynamics BLU-111 / Garland, TX/MCAAP	C / FP	JMC Rock Island, IL	May 2018	May 2021	4,500	5,884.16	Y		Jun 2014
1.1.1) Q2191 BLU-111	✓	2021	General Dynamics BLU-111 / Garland, TX/MCAAP	C / FP	JMC Rock Island, IL	May 2021	May 2024	466	6,244.44	Y		Jun 2014
1.1.2) Q2192 BLU-110	✓	2018	General Dynamics BLU-110 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jul 2018	Jul 2021	813	9,645.00	Y		Mar 2014
1.1.2) Q2192 BLU-110	✓	2019	General Dynamics BLU-110 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jul 2019	Jul 2022	1,593	9,477.09	Y		Mar 2014
1.1.2) Q2192 BLU-110		2020	General Dynamics BLU-110 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jul 2020	Jul 2023	164	9,666.63	Y		Mar 2014
1.1.2) Q2192 BLU-110	✓	2020	General Dynamics BLU-110 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jul 2020	Jul 2023	145	9,666.63	Y		Mar 2014
1.1.2) Q2192 BLU-110		2021	General Dynamics BLU-110 / Garland TX/MCAAP	C / TBD	JMC Rock Island, IL	Jul 2021	Jul 2024	239	9,668.00	Y		Mar 2014
1.1.2) Q2192 BLU-110	✓	2021	General Dynamics BLU-110 / Garland TX/MCAAP	C / TBD	JMC Rock Island, IL	Jul 2021	Jul 2024	194	9,668.00	Y		Mar 2014
1.1.3) Q2199 BLU-109		2015	National Forge BLU-109 / Irving, PA/MCAPP	C / FP	JMC Rock Island, IL	Feb 2016	Dec 2019	77	25,995.00	Y		Dec 2014
1.1.3) Q2199 BLU-109	✓	2018	National Forge BLU-109 / Irving, PA/MCAPP	C / FP	JMC Rock Island, IL	Feb 2018	Dec 2021	372	31,449.00	Y		Dec 2014
1.1.3) Q2199 BLU-109	✓	2019	National Forge BLU-109 / Irving, PA/MCAPP	C / FP	JMC Rock Island, IL	Feb 2019	Dec 2022	77	31,074.30	Y		Dec 2014
1.1.4) Q2160 BLU-117	✓	2019	General Dynamics BLU-117 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jun 2019	Mar 2022	269	15,809.53	Y		Feb 2016
1.1.4) Q2160 BLU-117		2020	General Dynamics BLU-117 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jun 2020	Mar 2023	60	25,020.01	Y		Feb 2016
1.1.4) Q2160 BLU-117	✓	2020	General Dynamics BLU-117 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jun 2020	Mar 2023	15	25,020.01	Y		Feb 2016
1.1.4) Q2160 BLU-117	✓	2021	General Dynamics BLU-117 / Garland TX/MCAAP	C / FP	JMC Rock Island, IL	Jun 2021	Mar 2024	6	25,520.40	Y		Feb 2016
1.1.5) Q2011 BSU-33 Con Fin		2019	CAPCO, INC / GRAND JUNCTION, CO	C / IDIQ	JMC Rock Island, IL	Feb 2019	Feb 2020	6,500	233.93	Y		Sep 2015
1.1.5) Q2011 BSU-33 Con Fin		2020	CAPCO, INC / GRAND JUNCTION, CO	C / IDIQ	JMC Rock Island, IL	Feb 2020	Feb 2021	6,500	237.44	Y		Sep 2015
1.1.5) Q2011 BSU-33 Con Fin		2021	CAPCO, INC / GRAND JUNCTION, CO	C / IDIQ	JMC Rock Island, IL	Feb 2021	Feb 2022	4,000	252.78	Y		Sep 2015
1.1.6) Q2193 BLU-126		2019	General Dyanmics / JMC Rock Island, IL	C / TBD	JMC Rock Island, IL	Mar 2019	Mar 2022	525	9,893.33	Y		Jun 2014

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.6) Q2193 BLU-126	✓	2019	General Dyanmics / JMC Rock Island, IL	C / TBD	JMC Rock Island, IL	Mar 2019	Mar 2022	565	9,893.33	Y		Jun 2014
1.1.6) Q2193 BLU-126		2020	General Dyanmics / JMC Rock Island, IL	C / FP	JMC Rock Island, IL	Jul 2020	Jul 2022	49	10,079.36	Y		Jun 2014
1.1.6) Q2193 BLU-126	✓	2020	General Dyanmics / JMC Rock Island, IL	C / FP	JMC Rock Island, IL	Jul 2020	Jul 2023	388	10,079.36	Y		Jun 2014
1.1.6) Q2193 BLU-126		2021	General Dyanmics / JMC Rock Island, IL	C / TBD	JMC Rock Island, IL	Jul 2021	Jul 2024	54	10,272.86	Y		Jun 2014
1.1.6) Q2193 BLU-126	✓	2021	General Dyanmics / JMC Rock Island, IL	C / TBD	JMC Rock Island, IL	Jul 2021	Jul 2024	15	10,272.86	Y		Jun 2014
2.1.1) Q2230 GBU-49 Precision Kit		2018	Raytheon Missile Systems / Albuquerque, New Mexico	C / TBD	NAVAIR, Pax River, MD	May 2018	May 2019	300	44,590.96	Y		
2.1.1) Q2230 GBU-49 Precision Kit		2019	Raytheon Missile Systems / Albuquerque, New Mexico	C / FFP	NAVAIR, Lakehurst, NJ	Aug 2019	May 2021	59	45,635.00	Y		Jun 2018
2.1.2) Q2200 Laser Capability DSU-38		2016	The Boeing Company DSU-38 / St. Charles, MO	SS / IDIQ	NAVAIR, Pax River, MD	Mar 2016	Mar 2017	1,016	13,422.00	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38		2017	The Boeing Company DSU-38 / St. Charles, MO	SS / IDIQ	NAVAIR, Pax River, MD	Mar 2017	Mar 2018	1,059	13,663.59	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38		2018	The Boeing Company DSU-38 / St. Charles, MO	SS / IDDQ	NAVAIR, Pax River, MD	May 2018	May 2019	521	13,923.19	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38	✓	2018	The Boeing Company DSU-38 / St. Charles, MO	SS / IDIQ	NAVAIR, Pax River, MD	May 2018	May 2019	754	13,923.19	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38	✓	2019	The Boeing Company DSU-38 / St. Charles, MO	SS / IDDQ	NAVAIR, Pax River, MD	May 2019	May 2020	276	11,663.00	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38	✓	2020	The Boeing Company DSU-38 / St. Charles, MO	SS / IDIQ	NAVAIR, Pax River, MD	May 2020	May 2021	104	14,486.00	Y		Jan 2015
2.1.2) Q2200 Laser Capability DSU-38	✓	2021	The Boeing Company DSU-38 / St. Charles, MO	SS / IDIQ	NAVAIR, Lakehurst, NJ	May 2021	May 2022	71	14,775.72	Y		Jan 2015
2.1.3) Q2220 Laser Capability DSU-42(†)		2019	The Boeing Company DSU-42 / St. Charles, MO	SS / IDIQ	NAVAIR, Pax River, MD	May 2019	May 2021	538	17,489.00	Y		Aug 2017
2.1.3) Q2220 Laser Capability DSU-42(†)	✓	2019	The Boeing Company DSU-42 / St. Charles, MO	SS / IDIQ	NAVAIR, Lakehurst, NJ	May 2019	May 2021	212	17,489.00	Y		Aug 2017
2.1.3) Q2220 Laser Capability DSU-42(†)	✓	2020	The Boeing Company DSU-42 / St. Charles, MO	SS / IDIQ	NAVAIR, Lakehurst, NJ	May 2020	May 2022	505	16,979.32	Y		Aug 2017
2.1.3) Q2220 Laser Capability DSU-42(†)		2021	The Boeing Company DSU-42 / St. Charles, MO	SS / IDIQ	NAVAIR, Lakehurst, NJ	May 2021	May 2023	325	17,318.90	Y		Aug 2017
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)		2017	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2017	Mar 2019	400	14,274.00	Y		Jan 2014

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)		2018	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2018	Mar 2020	129	8,674.00	Y		Jan 2014
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)	✓	2018	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2018	Mar 2020	117	8,674.00	Y		Jan 2014
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)	✓	2020	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2020	Mar 2022	676	9,024.42	Y		Jan 2014
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)		2021	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	250	9,204.90	Y		Jan 2014
2.1.4) Q2181 Laser Guided Bombs CCG (Raytheon)	✓	2021	Raytheon Missile Systems LGB (Raytheon) / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	4	9,204.90	Y		Jan 2014
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)		2017	Lockheed Martin Corporation LGB / Archbald, PA	C / IDIQ	Hill AFB, UT	Jul 2017	Mar 2019	400	14,274.00	Y		Jan 2014
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)		2018	Lockheed Martin Corporation LGB / Archbald, PA	C / IDIQ	Hill AFB, UT	Jul 2018	Mar 2020	129	8,674.00	Y		Jan 2014
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)	✓	2020	Lockheed Martin Corporation LGB / Archbald, PA	C / IDDQ	Hill AFB, UT	Jul 2020	Mar 2022	676	9,024.42	Y		Jan 2014
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)		2021	Lockheed Martin Corporation LGB / Archbald, PA	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	250	9,204.90	Y		Jan 2014
2.1.5) Q2181 Laser Guided Bombs CCG (Lockheed)	✓	2021	Lockheed Martin Corporation LGB / Archbald, PA	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	4	9,204.90	Y		Jan 2014
2.1.6) Q2187 Laser Guided Bombs AFG		2017	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2017	Mar 2019	2,552	4,417.00	Y		Jan 2012
2.1.6) Q2187 Laser Guided Bombs AFG		2018	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2018	Mar 2020	118	4,699.00	Y		Jan 2012
2.1.6) Q2187 Laser Guided Bombs AFG	✓	2018	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2018	Mar 2020	117	4,699.00	Y		Jan 2012
2.1.6) Q2187 Laser Guided Bombs AFG	✓	2020	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2020	Mar 2022	1,352	4,893.00	Y		Jan 2012
2.1.6) Q2187 Laser Guided Bombs AFG		2021	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	500	4,990.00	Y		Jan 2012
2.1.6) Q2187 Laser Guided Bombs AFG	✓	2021	Raytheon Missile Systems LGB (Raytheon)AFG / Tucson, AZ	C / IDIQ	Hill AFB, UT	Jul 2021	Mar 2023	8	4,990.00	Y		Jan 2012
3.1.1) Q2032 FMU-139 Electrical Fuze(†)	✓	2018	ALLIANT TECH SYS, INC / ROCKET CENTER,WV	SS / FFP	NAVAIR, Lakehurst, NJ	May 2019	May 2020	4,607	2,845.76	Y		Mar 2015
3.1.1) Q2032 FMU-139 Electrical Fuze(†)		2019	ALLIANT TECH SYS, INC / ROCKET CENTER,WV	SS / FFP	NAVAIR, Lakehurst, NJ	May 2019	May 2020	9,461	2,875.64	Y		Mar 2015
3.1.1) Q2032 FMU-139 Electrical Fuze(†)	✓	2019	ALLIANT TECH SYS, INC / ROCKET CENTER,WV	SS / FFP	NAVAIR, Lakehurst, NJ	May 2019	May 2020	3,874	2,845.76	Y		Mar 2015

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0145 / General Purpose Bombs	Item Number / Title [DODIC]: 1 / GP Bomb

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.1) Q2032 FMU-139 Electrical Fuze(†)		2021	ALLIANT TECH SYS, INC / ROCKET CENTER,WV	SS / FFP	NAVAIR, Lakehurst, NJ	May 2021	May 2022	6,840	2,249.63	Y		Mar 2015
3.1.1) Q2032 FMU-139 Electrical Fuze(†)	✓	2021	ALLIANT TECH SYS, INC / ROCKET CENTER,WV	SS / FFP	NAVAIR, Lakehurst, NJ	May 2021	May 2022	681	2,249.63	Y		Mar 2015

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	**Item Number / Title [DODIC]:** 1 / GP Bomb

Cost Elements (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016												Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.3) Q2220 Laser Capability DSU-42																															
	1	2019	NAVY	538	0	538																									538
✓	1	2019	NAVY	212	0	212																									212
✓	1	2020	NAVY	505	0	505																									505
	1	2021	NAVY	325	0	325																									325
3.1.1) Q2032 FMU-139 Electrical Fuze (10)																															
Prior Years Deliveries: 55033																															
✓	2	2018	NAVY	4,607	0	4,607																									4,607
	2	2019	NAVY	9,461	0	9,461																									9,461
✓	2	2019	NAVY	3,874	0	3,874																									3,874
	2	2021	NAVY	6,840	0	6,840																									6,840
✓	2	2021	NAVY	681	0	681																									681
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	**Item Number / Title [DODIC]:** 1 / GP Bomb

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.3) Q2220 Laser Capability DSU-42																															
	1	2019	NAVY	538	0	538																				A -	-	-	-	-	538
✓	1	2019	NAVY	212	0	212																				A -	-	-	-	-	212
✓	1	2020	NAVY	505	0	505																									505
	1	2021	NAVY	325	0	325																									325
3.1.1) Q2032 FMU-139 Electrical Fuze [10]																															
Prior Years Deliveries: 55033																															
✓	2	2018	NAVY	4,607	0	4,607																				A -	-	-	-	-	4,607
	2	2019	NAVY	9,461	0	9,461																				A -	-	-	-	-	9,461
✓	2	2019	NAVY	3,874	0	3,874																				A -	-	-	-	-	3,874
	2	2021	NAVY	6,840	0	6,840																									6,840
✓	2	2021	NAVY	681	0	681																									681
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0145 / General Purpose Bombs | **Item Number / Title [DODIC]:** 1 / GP Bomb

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.3) Q2220 Laser Capability DSU-42																															
	1	2019	NAVY	538	0	538	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	45	45	45	45	313
✓	1	2019	NAVY	212	0	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42	42	42	42	2
✓	1	2020	NAVY	505	0	505								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	505
	1	2021	NAVY	325	0	325																				A -	-	-	-	-	325
3.1.1) Q2032 FMU-139 Electrical Fuze [10]																															
Prior Years Deliveries: 55033																															
✓	2	2018	NAVY	4,607	0	4,607	-	-	-	-	-	-	-	383	384	384	384	384	384	384	384	384	384	384	384						0
	2	2019	NAVY	9,461	0	9,461	-	-	-	-	-	-	-	788	788	788	788	788	788	788	789	789	789	789	789						0
✓	2	2019	NAVY	3,874	0	3,874	-	-	-	-	-	-	-	322	322	323	323	323	323	323	323	323	323	323	323						0
	2	2021	NAVY	6,840	0	6,840																				A -	-	-	-	-	6,840
✓	2	2021	NAVY	681	0	681																				A -	-	-	-	-	681
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	**Item Number / Title [DODIC]:** 1 / GP Bomb

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.3) Q2220 Laser Capability DSU-42																															
	1	2019	NAVY	538	225	313	45	45	45	45	45	44	44																		0
✓	1	2019	NAVY	212	210	2	2																								0
✓	1	2020	NAVY	505	0	505	-	-	-	-	-	-	-	42	42	42	42	42	42	42	42	42	42	42	43						0
	1	2021	NAVY	325	0	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42	42	42	42	115
3.1.1) Q2032 FMU-139 Electrical Fuze (10)																															
Prior Years Deliveries: 55033																															
✓	2	2018	NAVY	4,607	4,607	0																									0
	2	2019	NAVY	9,461	9,461	0																									0
✓	2	2019	NAVY	3,874	3,874	0																									0
	2	2021	NAVY	6,840	0	6,840	-	-	-	-	-	-	-	570	570	570	570	570	570	570	570	570	570	570	570						0
✓	2	2021	NAVY	681	0	681	-	-	-	-	-	-	-	56	56	56	57	57	57	57	57	57	57	57	57						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	**Item Number / Title [DODIC]:** 1 / GP Bomb

Cost Elements (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.3) Q2220 Laser Capability DSU-42																															
	1	2019	NAVY	538	538	0																									0
✓	1	2019	NAVY	212	212	0																									0
✓	1	2020	NAVY	505	505	0																									0
	1	2021	NAVY	325	210	115	42	42	31																						0
3.1.1) Q2032 FMU-139 Electrical Fuze (10)																															
Prior Years Deliveries: 55033																															
✓	2	2018	NAVY	4,607	4,607	0																									0
	2	2019	NAVY	9,461	9,461	0																									0
✓	2	2019	NAVY	3,874	3,874	0																									0
	2	2021	NAVY	6,840	6,840	0																									0
✓	2	2021	NAVY	681	681	0																									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0145 / General Purpose Bombs	**Item Number / Title [DODIC]:** 1 / GP Bomb

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	The Boeing Company DSU-42 - St. Charles, MO	500	750	750	0	8	24	32	0	8	24	32
2	ALLIANT TECH SYS, INC - ROCKET CENTER,WV	2,000	50,000	50,000	0	8	12	20	0	8	12	20

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 503

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	7,809	8,742	3,388	2,865	673	3,538	3,175	3,206	3,128	3,128	Continuing	Continuing
Gross/Weapon System Cost *($ in Millions)*	164.814	180.919	75.241	64.631	15.529	80.160	72.271	73.745	72.819	74.275	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	164.814	180.919	75.241	64.631	15.529	80.160	72.271	73.745	72.819	74.275	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**164.814**	**180.919**	**75.241**	**64.631**	**15.529**	**80.160**	**72.271**	**73.745**	**72.819**	**74.275**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Joint Direct Attack Munition (JDAM) program is a joint Air Force/Navy program with the Air Force as the lead service. Designated ACAT 1C, this program upgrades the existing inventory of general purpose bombs (BLU-111, BLU-117, BLU-110, BLU-109, and BLU-126) by integrating the bombs with a field installed guidance kit using a Global Positioning System-aided Inertial Navigation System (GPS/INS). JDAM provides an accurate, adverse weather capability. JDAM is integrated with the B-52H, B-2A, B-1B, F-16 (all variants), F/A-18A+/C/D/E/F, F-15E, AV-8B, A-10C and F-22A aircraft. Integration with the MQ-9 and F-35 are in progress.

JDAM guides the bomb with movable surfaces that steer the bomb to a target based on a Global Positioning Satellite (GPS) coordinate. There is also a family of weapons which combine GPS and laser capabilities to provide a Dual Mode weapon (procured under 0145 General Purpose Bombs): Laser Joint Direct Attack Munition (LJDAM). The component that is added to the 500 lb. and 2,000 lb. JDAM to provide the Laser capability is the DSU-38 and DSU-42 respectively. The DSU-38 and DSU-42 Precision Laser Guidance Set (PLGS) contains a Semi-Active Laser to engage moving and stationary targets and an adjustable proximity sensor to provide an airburst capability. LJDAM is the material solution for the Direct Attack Moving Target Capability (DAMTC).

Pursuant to section 2308 of Title 10, U.S. Code, this program will seek cost efficiencies where available through production lot negotiations.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: 503		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	1 / JT Direct Attack Munition (JDAM) Tail Kit	P-5a, P-21			7,809 / 164.814	8,742 / 180.919	3,388 / 75.241	2,865 / 64.631	673 / 15.529	3,538 / 80.160
P-40	**Total Gross/Weapon System Cost**				**7,809 / 164.814**	**8,742 / 180.919**	**3,388 / 75.241**	**2,865 / 64.631**	**673 / 15.529**	**3,538 / 80.160**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2019 does not include the FY 2020 enacted congressional rescission of $16.574 million to FY 2019 OCO funding

FY 2021 baseline funding is required to meet Naval Munitions Requirements Process (NMRP) inventory objectives.

Efforts within this program support JEON PC-0012 Advanced Mining.

OCO:
FY 2021 Direct War Overseas Contingency Operations (OCO) funding is required to replenish JDAM expended in direct support of Operation Inherent Resolve (OIR). Funding may be used to address OCO production related issues.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	7,809	8,742	3,388	2,865	673	3,538
Gross/Weapon System Cost *($ in Millions)*	164.814	180.919	75.241	64.631	15.529	80.160
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	164.814	180.919	75.241	64.631	15.529	80.160
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**164.814**	**180.919**	**75.241**	**64.631**	**15.529**	**80.160**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	21,105.65	20,695.38	22,208.09	22,558.81	23,074.29	22,656.87

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
1.1.1) JD500-JDAM Tail Kit(†) (1)	20,954.16	7,809	163.631	20,373.83	8,742	178.108	21,355.95	3,388	72.354	21,196.98	2,954	62.616	21,196.98	673	14.266	21,196.98	3,627	76.882
Subtotal: Recurring Cost	-	-	*163.631*	-	-	*178.108*	-	-	*72.354*	-	-	*62.616*	-	-	*14.266*	-	-	*76.882*
Subtotal: Hardware Cost	**-**	**-**	***163.631***	**-**	**-**	***178.108***	**-**	**-**	***72.354***	**-**	**-**	***62.616***	**-**	**-**	***14.266***	**-**	**-**	***76.882***
Support Cost																		
2.1) JD800-Support - Integrated Logistics	-	-	0.089	-	-	0.252	-	-	0.262	-	-	0.161	-	-	0.101	-	-	0.262
2.2) JD830-Support - Production Engineering	-	-	1.094	-	-	1.271	-	-	1.311	-	-	0.634	-	-	0.459	-	-	1.093
2.3) JD850-Support - Miscellaneous Support (2)	-	-	-	-	-	1.288	-	-	1.314	-	-	0.595	-	-	0.703	-	-	1.298
2.4) JD870-Support - JDAM QS-ER (3)	-	-	-	-	-	-	-	-	-	-	-	0.625	-	-	-	-	-	0.625
Subtotal: Support Cost	**-**	**-**	***1.183***	**-**	**-**	***2.811***	**-**	**-**	***2.887***	**-**	**-**	***2.015***	**-**	**-**	***1.263***	**-**	**-**	***3.278***
Gross/Weapon System Cost	**21,105.65**	**7,809**	**164.814**	**20,695.38**	**8,742**	**180.919**	**22,208.09**	**3,388**	**75.241**	**22,558.81**	**2,865**	**64.631**	**23,074.29**	**673**	**15.529**	**22,656.87**	**3,538**	**80.160**

(†) indicates the presence of a P-5a

Footnotes:

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

(1) Generally, JD500-JDAM Tail Kit Unit prices may vary outside the allowable year to year inflation based on the quantities and combinations of variants being procured each year. There are three tail kit variants that are procured and unit costs are derived from a simple average of the three variants (non-weighted). FY 2019 unit cost updated based on actual contract award. Unit price is lower as over 50% of the USN procurement consisted of the least expensive of the three tail kit variants (KMU-572-500lb). FY 2020 unit cost updated in anticipation of lesser unit cost based on FY19 actuals. FY 2019 does not include FY 2020 enacted rescission of $16.574M FY 2019 OCO.

(2) JD850 Miscellaneous Support - Funds activities related to the integration of Global Positioning System (GPS) M-Code per DoD mandate, which impacts overall system to include computer processor. This cost element includes parts obsolescence, associated production acceptance and test, ancillary support cost and product improvement.

(3) JD870 JDAM QS-ER - Funding supports NAVSEA's JDAM Quick Strike Extended Range mine employment.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0148 / JT Direct Attack Munition (JDAM)	Item Number / Title [DODIC]: 1 / JT Direct Attack Munition (JDAM) Tail Kit

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) JD500-JDAM Tail Kit(†)		2018	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Apr 2018	May 2019	2,715	20,953.28	Y		Oct 2013
1.1.1) JD500-JDAM Tail Kit(†)	✓	2018	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Apr 2018	May 2019	5,094	20,953.28	Y		Oct 2013
1.1.1) JD500-JDAM Tail Kit(†)		2019	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Jun 2019	Jul 2020	4,142	20,884.14	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit(†)	✓	2019	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Jun 2019	Jul 2020	4,600	19,914.42	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit(†)		2020	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2020	Mar 2021	2,844	21,355.95	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit(†)	✓	2020	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2020	Mar 2021	544	21,355.95	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit(†)		2021	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2021	Mar 2022	2,954	21,196.98	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit(†)	✓	2021	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2021	Mar 2022	673	21,196.98	Y		Jul 2017

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) JD500-JDAM Tail Kit (1)																															
	1	2018	NAVY	2,715	0	2,715							A -	-	-	-	-	-	-	-	-	-	-	-	-	226	226	226	226	226	1,585
✓	1	2018	NAVY	5,094	0	5,094							A -	-	-	-	-	-	-	-	-	-	-	-	-	425	425	425	425	425	2,969
	1	2019	NAVY	4,142	0	4,142																					A -	-	-	-	4,142
✓	1	2019	NAVY	4,600	0	4,600																					A -	-	-	-	4,600
	1	2020	NAVY	2,844	0	2,844																									2,844
✓	1	2020	NAVY	544	0	544																									544
	1	2021	NAVY	2,954	0	2,954																									2,954
✓	1	2021	NAVY	673	0	673																									673
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) JD500-JDAM Tail Kit [1]																															
	1	2018	NAVY	2,715	1,130	1,585	226	226	226	226	227	227	227																		0
✓	1	2018	NAVY	5,094	2,125	2,969	425	424	424	424	424	424	424																		0
	1	2019	NAVY	4,142	0	4,142	-	-	-	-	-	-	-	-	-	346	346	345	345	345	345	345	345	345	345	345	345				0
✓	1	2019	NAVY	4,600	0	4,600	-	-	-	-	-	-	-	-	-	383	383	383	383	383	383	383	383	384	384	384	384				0
	1	2020	NAVY	2,844	0	2,844					A -	-	-	-	-	-	-	-	-	-	-	-	-	237	237	237	237	237	237	237	1,185
✓	1	2020	NAVY	544	0	544					A -	-	-	-	-	-	-	-	-	-	-	-	-	45	45	45	45	45	45	45	229
	1	2021	NAVY	2,954	0	2,954																	A -	-	-	-	-	-	-	-	2,954
✓	1	2021	NAVY	673	0	673																	A -	-	-	-	-	-	-	-	673
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) JD500-JDAM Tail Kit (1)																															
	1	2018	NAVY	2,715	2,715	0																									0
✓	1	2018	NAVY	5,094	5,094	0																									0
	1	2019	NAVY	4,142	4,142	0																									0
✓	1	2019	NAVY	4,600	4,600	0																									0
	1	2020	NAVY	2,844	1,659	1,185	237	237	237	237	237																				0
✓	1	2020	NAVY	544	315	229	45	46	46	46	46																				0
	1	2021	NAVY	2,954	0	2,954	-	-	-	-	-	248	246	246	246	246	246	246	246	246	246	246	246								0
✓	1	2021	NAVY	673	0	673	-	-	-	-	-	57	56	56	56	56	56	56	56	56	56	56	56								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0148 / JT Direct Attack Munition (JDAM)	**Item Number / Title [DODIC]:** 1 / JT Direct Attack Munition (JDAM) Tail Kit

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	The Boeing Company - St. Charles, MO	10,500	18,900	55,000	0	0	0	0	15	5	13	18

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0204162N, 0206138M

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,230.814	137.985	68.942	60.719	23.000	83.719	64.641	58.732	56.358	57.480	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,230.814	137.985	68.942	60.719	23.000	83.719	64.641	58.732	56.358	57.480	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,230.814**	**137.985**	**68.942**	**60.719**	**23.000**	**83.719**	**64.641**	**58.732**	**56.358**	**57.480**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Combat and training inventory requirements of rocket and rocket components establish the Total Munitions Requirement (TMR) in accordance with the Naval Munitions Requirements process (NMRP). Production is for complete units/operationally configured units to satisfy the requirement of applicable specifications of Airborne Rockets, All types.

The 2.75-inch and 5.00-inch rocket motor variants are employed by both rotary and fixed wing platforms in the Close Air Support (CAS), Military Operations in Urban Terrain (MOUT), and counter-Fast Attack Craft/Fast Inshore Attack Craft (counter-FAC/FIAC) mission areas. The 2.75-inch rocket configured with Advanced Precision Kill Weapon System (APKWS) enables a resilient and precise weapon in support of close combat lethality in complex terrain.

The variety of warheads enable fleet users to maintain operational flexibility, better target-mission matching for specific applications and effects, and permit logistic agility. Warheads include the Mk-152 Insensitive Munitions (IM) compliant warhead for shipboard operations with APKWS guidance sections, and M282 Multi-Purpose Penetrator (MPP)warhead. Inert warheads are used extensively when range restrictions preclude live applications.

The Smokey Sam Simulator System is a pyrotechnic visual cueing device primarily utilized in aircrew training to mimic a Surface to Air Missile threat. The system is currently qualified for land and at sea use.

Rocket Launchers provide guided and unguided rocket launch capability for 2.75 Inch Rockets including the LAU-61 G/A Digital Rocket Launcher (DRL),LAU-61 C/A, and LAU-68 F/A.

Advanced Precision Kill Weapon System (APKWS) is a low-cost Semi Active Laser (SAL) guidance section to enhance the precision of 2.75-inch unguided rockets. APKWS is a small, lightweight, mid-body guidance section that can be assembled with existing unguided rocket components and can be fired from 2.75-inch rocket launchers. Compared to unguided rockets, APKWS sustains Joint Force military advantage by offering greater precision, increased stored kills per aircraft sortie, reduces collateral damage, improves effectiveness against soft and lightly armored targets, and enhances close combat lethality and crew survivability through increased standoff ranges.

A variety of containers are required to support shipping, handling and storage of all up round rockets and rocket components. The program re-manufactures existing containers and procures new containers as needed.

Miscellaneous Items provides for procurement of various rocket components not to exceed a total cost of 500K per year per component.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0204162N, 0206138M
Line Item MDAP/MAIS Code: N/A		

Product Improvement (PIP) provides for rapid iterative modifications and upgrades to products within Airborne Rockets, All types. Efforts include configuration changes involving production, engineering, manufacturing, installation and testing that increases system or combat effectiveness to extend the useful military life of an item, and/or to improve the item within the current performance envelope.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0204162N, 0206138M

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a	Airborne Rockets, All Types	P-5a, P-21			- / 1,230.814	- / 137.985	- / 68.942	- / 60.719	- / 23.000	- / 83.719
P-40	**Total Gross/Weapon System Cost**				**- / 1,230.814**	**- / 137.985**	**- / 68.942**	**- / 60.719**	**- / 23.000**	**- / 83.719**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The FY 2021 funding request was reduced by $3.400 million to account for the availability of prior year execution balances.

FY 2021 baseline funding is required to procure 2.75-inch rocket components - to include rocket motors, warheads, Advanced Precision Kill Weapon System (APKWS) guidance sections, rocket launchers and containers - to enable low-cost area suppression as well as precision engagements from US Marine Corps (USMC) H-1, AV-8B, and F/A-18A-D aircraft in low collateral damage Close Air Support (CAS) operations, and from US Navy (USN) H-60 aircraft to neutralize Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC) threats.

In addition, FY 2021 funding is required to address product improvements needed for obsolete components designed and produced over 40 years ago as well as the production engineering and integrated logistics support efforts needed for all 2.75-inch rocket components. Airborne Rockets product improvement efforts are required to reduce production cost, extend component life and to improve Combat effectiveness on pace with platform Combat system improvements.

OCO:
FY 2021 Direct War OCO funding is required to replenish munitions and components that were expended in direct support of combat operations in theater. These operations were in support of Operation Inherent Resolve (OIR).

MK-66 rocket motors are required for combat operations and to maintain the rocket motor inventory required levels. The MK-66 motor is used as the component motor in all 2.75-inch rocket configurations. Due to an increase in pre-deployment training as well as combat operations, additional procurements are required to maintain the operational capability of the warfighter and to ensure inventory is maintained.

Rocket Launchers provide unguided rocket launch capability for 2.75 Inch Rockets including the LAU-61 C/A.

Advanced Precision Kill Weapon System (APKWS) OCO is required to replenish combat expenditures in support of OCO operations.

Containers OCO is required to support shipping, handling and storage of all up round rockets and rocket components being procured.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types	**Aggregated Items Title:** Airborne Rockets, All Types

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Rockets Hardware																				
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)	A		821.37	465,346	382.220	603.97	35,565	21.480	616.06	38,331	23.614	628.39	38,374	24.114	628.39	20,451	12.851	628.39	58,825	36.965
1.2) (Q5041) MK 71 ROCKET MOTOR	A		-	-	56.296	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) (Q5042) MK 66 ROCKET MOTOR (MOD 6)	A		-	-	0.585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) (Q5200) SMOKEY SAM(†)	A		356.34	15,805	5.632	-	-	-	177.77	2,000	0.356	181.33	2,000	0.363	-	-	-	181.33	2,000	0.363
Subtotal: 1) Rockets Hardware			**-**	**-**	***444.733***	**-**	**-**	***21.480***	**-**	**-**	***23.970***	**-**	**-**	***24.477***	**-**	**-**	***12.851***	**-**	**-**	***37.328***
2) Rocket Warheads																				
2.1) (Q5030) WTU1/ B INERT WARHEAD (2)(†)	A		120.45	239,901	28.896	81.88	7,616	0.624	83.52	37,610	3.141	85.20	17,610	1.500	85.20	12,050	1.027	85.20	29,660	2.527
2.2) (Q5080) MK 146 HE WARHEAD	A		18,431.82	1,100	20.275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3) (Q5090) MK 149 WARHEAD	A		27,968.90	418	11.691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4) (Q5897) WTU-11/ B WARHEAD	A		-	-	1.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5) (Q5898) M282 MULTI-PURPOSE PENETRATOR (MPP)(†)	A		3,536.24	6,788	24.004	-	-	-	3,734.09	39	0.146	3,808.78	39	0.149	-	-	-	3,808.78	39	0.149
2.6) (Q5899) MK 152 WARHEAD(†)	A		1,377.20	79,657	109.704	2,173.25	143	0.310	2,218.00	287	0.637	2,261.06	100	0.226	-	-	-	2,261.06	100	0.226
Subtotal: 2) Rocket Warheads			**-**	**-**	***195.595***	**-**	**-**	***0.934***	**-**	**-**	***3.924***	**-**	**-**	***1.875***	**-**	**-**	***1.027***	**-**	**-**	***2.902***
3) Rocket Launchers																				
3.1) (Q5895) LAU-68 F/A (2.75")(†)	A		18,471.52	2,827	52.219	18,737.76	184	3.448	-	-	-	19,380.00	202	3.915	-	-	-	19,380.00	202	3.915
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER(†)	A		56,120.69	522	29.295	51,165.09	86	4.400	52,188.40	99	5.167	53,350.88	57	3.041	-	-	-	53,350.88	57	3.041
3.3) (QTBD) LAU-61 C/A (2.75-inch)(†)	A		-	-	-	-	-	-	38,000.00	20	0.760	-	-	0.000	38,760.00	66	2.558	38,760.00	66	2.558
Subtotal: 3) Rocket Launchers			**-**	**-**	***81.514***	**-**	**-**	***7.848***	**-**	**-**	***5.927***	**-**	**-**	***6.956***	**-**	**-**	***2.558***	**-**	**-**	***9.514***
4) APKWS																				
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)	A		25,982.93	13,120	340.896	22,085.32	3,516	77.652	22,515.92	1,123	25.286	22,966.24	850	19.521	22,966.24	236	5.420	22,966.24	1,086	24.941

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0151 / Airborne Rockets, All Types	Aggregated Items Title: Airborne Rockets, All Types

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: 4) APKWS			**-**	**-**	***340.896***	**-**	**-**	***77.652***	**-**	**-**	***25.286***	**-**	**-**	***19.521***	**-**	**-**	***5.420***	**-**	**-**	***24.941***
5) Other																				
5.1) (Q5871) MISCELLANEOUS ITEMS	A		-	-	8.263	-	-	0.100	-	-	0.100	-	-	0.100	-	-	-	-	-	0.100
5.2) (Q5870) CONTAINERS	A		-	-	35.403	-	-	2.765	-	-	2.637	-	-	2.075	-	-	0.487	-	-	2.562
Subtotal: 5) Other			**-**	**-**	***43.666***	**-**	**-**	***2.865***	**-**	**-**	***2.737***	**-**	**-**	***2.175***	**-**	**-**	***0.487***	**-**	**-**	***2.662***
6) (Q5800) Integrated Logistics Support (ILS)																				
6.1) ROCKET WARHEADS-ILS	A		-	-	3.575	-	-	0.186	-	-	0.190	-	-	0.194	-	-	-	-	-	0.194
6.2) ROCKET LAUNCHERS-ILS	A		-	-	0.756	-	-	0.109	-	-	0.112	-	-	0.115	-	-	-	-	-	0.115
6.3) APKWS-ILS	A		-	-	0.728	-	-	0.053	-	-	0.055	-	-	0.057	-	-	-	-	-	0.057
6.4) OTHER-ILS	A		-	-	0.036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 6) (Q5800) Integrated Logistics Support (ILS)			**-**	**-**	***5.095***	**-**	**-**	***0.348***	**-**	**-**	***0.357***	**-**	**-**	***0.366***	**-**	**-**	**-**	**-**	**-**	***0.366***
7) (Q5850) Product Improvement (PIP)																				
7.1) ROCKET MOTORS - PIP	A		-	-	2.049	-	-	0.053	-	-	0.055	-	-	0.057	-	-	-	-	-	0.057
7.2) ROCKET WARHEADS-PIP	A		-	-	14.622	-	-	0.230	-	-	0.235	-	-	0.240	-	-	-	-	-	0.240
7.3) ROCKET LAUNCHERS-PIP	A		-	-	0.769	-	-	0.576	-	-	0.588	-	-	0.600	-	-	-	-	-	0.600
7.4) APKWS-PIP	A		-	-	24.522	-	-	13.356	-	-	3.625	-	-	2.135	-	-	-	-	-	2.135
Subtotal: 7) (Q5850) Product Improvement (PIP)			**-**	**-**	***41.962***	**-**	**-**	***14.215***	**-**	**-**	***4.503***	**-**	**-**	***3.032***	**-**	**-**	**-**	**-**	**-**	***3.032***
8) (Q5830) Production Engineering Support (PES)																				
8.1) ROCKET MOTORS-PES	A		-	-	14.519	-	-	9.520	-	-	0.536	-	-	0.543	-	-	-	-	-	0.543
8.2) ROCKET WARHEADS-PES	A		-	-	31.050	-	-	0.737	-	-	0.544	-	-	0.551	-	-	-	-	-	0.551
8.3) ROCKET LAUNCHERS-PES	A		-	-	8.699	-	-	0.800	-	-	0.205	-	-	0.209	-	-	-	-	-	0.209
8.4) APKWS-PES	A		-	-	23.085	-	-	1.586	-	-	0.953	-	-	1.014	-	-	0.657	-	-	1.671
Subtotal: 8) (Q5830) Production Engineering Support (PES)			**-**	**-**	***77.353***	**-**	**-**	***12.643***	**-**	**-**	***2.238***	**-**	**-**	***2.317***	**-**	**-**	***0.657***	**-**	**-**	***2.974***
Total			**-**	**-**	**1,230.814**	**-**	**-**	**137.985**	**-**	**-**	**68.942**	**-**	**-**	**60.719**	**-**	**-**	**23.000**	**-**	**-**	**83.719**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types	**Aggregated Items Title:** Airborne Rockets, All Types

Footnotes:

(1) (Q5040) MK 66 ROCKET MOTOR (MOD 4): Pricing is provided by the Army and incorporates other customer buys. The unit price fluctuates depending on the total procurement. Increase in FY 2021 OCO is required to replenish decreasing inventory levels because of OCO operations.

(2) (Q5030) WTU1/B INERT WARHEAD: Pricing provided by the Army and incorporates other services' buys. Baseline unit cost is dependent on total quantities from the Army. Increase in FY 2021 OCO is required to replenish decreasing inventory levels because of OCO operations.

(3) (Q5896) APKWS G&C SECTIONS: Pricing is provided by the Navy and depends on other customer buys. The unit price fluctuates depending on the total procurement between other services and FMS customers. FY 2020 and out APKWS unit price updated based on prior year actuals. Funding realigned to additional WTU-1/B (FY 2020) and MK-66 (FY 2021-FY 2025) quantities to support inventory requirements.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0151 / Airborne Rockets, All Types	Aggregated Items: Airborne Rockets, All Types

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Rockets Hardware												
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)		2018	General Dynamics / Burlington, VT	SS / FFP	Huntsville	Jul 2018	Apr 2020	47,681	401.23	Y		Oct 2013
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)	✓	2018	General Dynamics / Burlington, VT	SS / FFP	Huntsville	Jul 2018	Apr 2020	472	406.78	Y		Oct 2013
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)		2019 (4)	TBD (5) / TBD	C / FFP	Huntsville	May 2020	Aug 2022	35,492	603.97	Y		Sep 2018
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)	✓	2019	TBD (5) / TBD	C / FFP	Huntsville	May 2020	Aug 2022	73	603.97	Y		Sep 2018
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)	✓	2020	TBD (5) / TBD	C / FFP	Huntsville	May 2020	Aug 2022	38,331	616.06	Y		Sep 2018
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)		2021	TBD (5) / TBD	C / FFP	Huntsville	May 2021	Nov 2022	38,374	628.39	Y		Sep 2018
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)(†)	✓	2021	TBD (5) / TBD	C / FFP	Huntsville	May 2021	Nov 2022	20,451	628.39	Y		Sep 2018
1.4) (Q5200) SMOKEY SAM	✓	2020	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Jun 2020	Jun 2021	2,000	177.77	Y		
1.4) (Q5200) SMOKEY SAM		2021	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Jun 2021	Jun 2022	2,000	181.33	Y		
2) Rocket Warheads												
2.1) (Q5030) WTU1/B INERT WARHEAD (2)		2017	General Dynamics / Burlington, VT	SS / FFP	Huntsville	Sep 2017	Sep 2018	7,643	78.69	Y		Oct 2013
2.1) (Q5030) WTU1/B INERT WARHEAD (2)		2018	General Dynamics / Burlington, VT	SS / FFP	Huntsville	May 2018	May 2019	29,890	69.81	Y		Oct 2013
2.1) (Q5030) WTU1/B INERT WARHEAD (2)		2019 (6)	TBD (7) / TBD	C / FFP	Huntsville	May 2020	May 2021	7,616	81.88	Y		Sep 2018
2.1) (Q5030) WTU1/B INERT WARHEAD (2)	✓	2020	TBD (7) / TBD	C / FFP	Huntsville	May 2020	May 2021	37,610	83.52	Y		Sep 2018
2.1) (Q5030) WTU1/B INERT WARHEAD (2)		2021	TBD (7) / TBD	C / FFP	Huntsville	May 2021	May 2022	17,610	85.20	Y		Sep 2018
2.1) (Q5030) WTU1/B INERT WARHEAD (2)	✓	2021	TBD (7) / TBD	C / FFP	Huntsville	May 2021	May 2022	12,050	85.20	Y		Sep 2018
2.5) (Q5898) M282 MULTI-PURPOSE PENETRATOR (MPP)	✓	2020	General Dynamics (8) / Burlington, VT	C / FFP	Huntsville	Jun 2020	Jun 2021	39	3,734.09	Y		
2.5) (Q5898) M282 MULTI-PURPOSE PENETRATOR (MPP)		2021	General Dynamics (8) / Burlington, VT	C / FFP	Huntsville	Jun 2021	Jun 2022	39	3,808.78	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0151 / Airborne Rockets, All Types	Aggregated Items: Airborne Rockets, All Types

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.6) (Q5899) MK 152 WARHEAD	✓	2018	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Apr 2019	Apr 2020	28	2,226.00	Y		
2.6) (Q5899) MK 152 WARHEAD		2019	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Apr 2019	Apr 2020	100	2,173.25	Y		
2.6) (Q5899) MK 152 WARHEAD	✓	2019	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Apr 2019	Apr 2020	43	2,173.25	Y		
2.6) (Q5899) MK 152 WARHEAD	✓	2020	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Jun 2020	Jun 2021	287	2,218.00	Y		
2.6) (Q5899) MK 152 WARHEAD		2021	NSWC INDIAN HEAD DIV / Indian Head, MD	Various	NSWC	Jun 2021	Jun 2022	100	2,261.06	Y		
3) Rocket Launchers												
3.1) (Q5895) LAU-68 F/A (2.75")		2018	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2019	Mar 2020	184	18,620.97	Y		Oct 2018
3.1) (Q5895) LAU-68 F/A (2.75")		2019	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2019	Mar 2020	184	18,737.76	Y		Oct 2018
3.1) (Q5895) LAU-68 F/A (2.75")		2021	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Apr 2021	Apr 2022	202	19,380.00	Y		Oct 2018
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER(†)		2018	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2019	May 2020	110	50,161.85	Y		Oct 2018
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER(†)		2019	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2019	May 2020	86	51,165.09	Y		Oct 2018
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER(†)	✓	2020	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2020	Apr 2021	99	52,188.40	Y		Oct 2018
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER(†)		2021	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Apr 2021	Apr 2022	57	53,350.88	Y		Oct 2018
3.3) (QTBD) LAU-61 C/A (2.75-inch)	✓	2020	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2020	Mar 2021	20	38,000.00	Y		Oct 2018
3.3) (QTBD) LAU-61 C/A (2.75-inch)	✓	2021	Arnold Defense / St. Louis, MO	SS / FFP	NSWC	Mar 2021	Mar 2022	66	38,760.00	Y		Oct 2018
4) APKWS												
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)		2018	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Mar 2018	Feb 2019	1,134	22,820.00	Y		Sep 2015
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)	✓	2018	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Mar 2018	Feb 2019	77	21,929.34	Y		Sep 2015
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)		2019	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Feb 2019	Feb 2020	3,426	22,074.43	Y		Jul 2018

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0151 / Airborne Rockets, All Types	Aggregated Items: Airborne Rockets, All Types

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)	✓	2019	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Feb 2019	Feb 2020	90	22,505.00	Y		Jul 2018
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)		2020	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Mar 2020	Apr 2021	730	22,515.92	Y		Jul 2018
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)	✓	2020	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	Mar 2020	Apr 2021	393	22,515.92	Y		Jul 2018
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)		2021	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	May 2021	Apr 2022	850	22,966.24	Y		Jul 2018
4.1) (Q5896) APKWS G&C SECTIONS (3)(†)	✓	2021	BAE SYSTEMS (9) / NASHUA, NH	SS / FFP	NAVAIR HQ	May 2021	Apr 2022	236	22,966.24	Y		Jul 2018

(†) indicates the presence of a P-21

Footnotes:

(4) (Q5040) MK66 Rocket Motor (Mod 4): FY19 MK-66 contract award changed to May 2020 for additional time necessary for certified cost and pricing data and audits due to change in Army acquisition strategy.

(5) (Q5040) MK66 Annual Production Rates are TBD and will be identified once the comptetitive contract is awarded in FY 2020.

(6) (Q5030) WTU1/B INERT WARHEAD: FY19 WTU1/B contract award changed to May 2020 for additional time necessary for certified cost and pricing data and audits due to change in Army acquisition strategy.

(7) (Q5030) WTU1/B INERT WARHEAD: Annual Production Rates are TBD and will be identified once the comptetitive contract is awarded.

(8) (Q5898) M282 MULTI-PURPOSE PENETRATOR: MSR will be met with purchases from the Army.

(9) (Q5896) APKWS G&C SECTIONS : Minimum Sustaining Rate is satisfied by multi-service procurements.

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types	**Aggregated Items:** Airborne Rockets, All Types

Items (Units in Thousands)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017												Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Rockets Hardware																															
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)																															
Prior Years Deliveries: 417193																															
	1	2018	NAVY	47.681	.000	47.681																						A -	-	-	47.681
✓	1	2018	NAVY	.472	.000	.472																						A -	-	-	.472
	2	2019	NAVY	35.492	.000	35.492																									35.492
✓	2	2019	NAVY	.073	.000	.073																									.073
✓	2	2020	NAVY	38.331	.000	38.331																									38.331
	2	2021	NAVY	38.374	.000	38.374																									38.374
✓	2	2021	NAVY	20.451	.000	20.451																									20.451
3) Rocket Launchers																															
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER																															
Prior Years Deliveries: 412																															
	3	2018	NAVY	.110	.000	.110																									.110
	3	2019	NAVY	.086	.000	.086																									.086
✓	3	2020	NAVY	.099	.000	.099																									.099
	3	2021	NAVY	.057	.000	.057																									.057
4) APKWS																															
4.1) (Q5896) APKWS G&C SECTIONS (3)																															
Prior Years Deliveries: 11909																															
	4	2018	NAVY	1.134	.000	1.134																		A -	-	-	-	-	-	-	1.134
✓	4	2018	NAVY	.077	.000	.077																		A -	-	-	-	-	-	-	.077
	4	2019	NAVY	3.426 (10)	.000	3.426																									3.426
✓	4	2019	NAVY	.090	.000	.090																									.090
	4	2020	NAVY	.730	.000	.730																									.730
✓	4	2020	NAVY	.393	.000	.393																									.393
	4	2021	NAVY	.850	.000	.850																									.850
✓	4	2021	NAVY	.236	.000	.236																									.236
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types | **Aggregated Items:** Airborne Rockets, All Types

Items (Units in Thousands)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Rockets Hardware																															
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)																															
Prior Years Deliveries: 417193																															
	1	2018	NAVY	47.681	.000	47.681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.974	3.974	3.974	3.974	3.974	3.973	23.838
✓	1	2018	NAVY	.472	.000	.472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.040	.040	.040	.040	.039	.039	.234
	2	2019	NAVY	35.492	.000	35.492																				A -	-	-	-	-	35.492
✓	2	2019	NAVY	.073	.000	.073																				A -	-	-	-	-	.073
✓	2	2020	NAVY	38.331	.000	38.331																				A -	-	-	-	-	38.331
	2	2021	NAVY	38.374	.000	38.374																									38.374
✓	2	2021	NAVY	20.451	.000	20.451																									20.451
3) Rocket Launchers																															
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER																															
Prior Years Deliveries: 412																															
	3	2018	NAVY	.110	.000	.110						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.010	.010	.009	.009	.009	.063
	3	2019	NAVY	.086	.000	.086						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.008	.008	.008	.008	.008	.046
✓	3	2020	NAVY	.099	.000	.099																		A -	-	-	-	-	-	-	.099
	3	2021	NAVY	.057	.000	.057																									.057
4) APKWS																															
4.1) (Q5896) APKWS G&C SECTIONS (3)																															
Prior Years Deliveries: 11909																															
	4	2018	NAVY	1.134	.000	1.134	-	-	-	-	.095	.095	.095	.095	.095	.095	.094	.094	.094	.094	.094	.094									.000
✓	4	2018	NAVY	.077	.000	.077	-	-	-	-	.003	.003	.003	.003	.003	.004	.004	.004	.004	.004	.004	.004	-	-	-	-	.004	.005	.005	.005	.015
	4	2019	NAVY	3.426 (10)	.000	3.426					A -	-	-	-	-	-	-	-	-	-	-	-	.311	.311	.311	.311	.311	.311	.311	.313	.936
✓	4	2019	NAVY	.090	.000	.090					A -	-	-	-	-	-	-	-	-	-	-	-	.011	.011	.011	.011	.011	.011	.011	.013	.000
	4	2020	NAVY	.730	.000	.730																		A -	-	-	-	-	-	-	.730
✓	4	2020	NAVY	.393	.000	.393																		A -	-	-	-	-	-	-	.393
	4	2021	NAVY	.850	.000	.850																									.850
✓	4	2021	NAVY	.236	.000	.236																									.236
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types | **Aggregated Items:** Airborne Rockets, All Types

Items (Units in Thousands)							Fiscal Year 2021													Fiscal Year 2022												
										Calendar Year 2021													Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
1) Rockets Hardware																																
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)																																
Prior Years Deliveries: 417193																																
	1	2018	NAVY	47.681	23.843	23.838	3.973	3.973	3.973	3.973	3.973	3.973																				.000
✓	1	2018	NAVY	.472	.238	.234	.039	.039	.039	.039	.039	.039																				.000
	2	2019	NAVY	35.492	.000	35.492	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.958	2.958	29.576
✓	2	2019	NAVY	.073	.000	.073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.006	.006	.061
✓	2	2020	NAVY	38.331	.000	38.331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.194	3.194	31.943
	2	2021	NAVY	38.374	.000	38.374								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.374
✓	2	2021	NAVY	20.451	.000	20.451								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.451
3) Rocket Launchers																																
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER																																
Prior Years Deliveries: 412																																
	3	2018	NAVY	.110	.047	.063	.009	.009	.009	.009	.009	.009	.009																			.000
	3	2019	NAVY	.086	.040	.046	.008	.007	.007	.007	.007	.007	.003																			.000
✓	3	2020	NAVY	.099	.000	.099	-	-	-	-	-	-	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.009	.010								.000
	3	2021	NAVY	.057	.000	.057							A -	-	-	-	-	-	-	-	-	-	-	-	.004	.004	.004	.005	.005	.005	.030
4) APKWS																																
4.1) (Q5896) APKWS G&C SECTIONS (3)																																
Prior Years Deliveries: 11909																																
	4	2018	NAVY	1.134	1.134	.000																										.000
✓	4	2018	NAVY	.077	.062	.015	.005	.005	.005																							.000
	4	2019	NAVY	3.426 (10)	2.490	.936	.156	.156	.156	.156	.156	.156																				.000
✓	4	2019	NAVY	.090	.090	.000																										.000
	4	2020	NAVY	.730	.000	.730	-	-	-	-	-	-	.122	.122	.122	.122	.121	.121														.000
✓	4	2020	NAVY	.393	.000	.393	-	-	-	-	-	-	.019	.019	.019	.019	.019	.017	.046	.046	.047	.047	.047	.048								.000
	4	2021	NAVY	.850	.000	.850								A -	-	-	-	-	-	-	-	-	-	-	.071	.071	.071	.071	.071	.071	.424
✓	4	2021	NAVY	.236	.000	.236								A -	-	-	-	-	-	-	-	-	-	-	.020	.020	.020	.020	.020	.020	.116
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types | **Aggregated Items:** Airborne Rockets, All Types

Items (Units in Thousands)							Fiscal Year 2023													Fiscal Year 2024												BALANCE
							Calendar Year 2023													Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Rockets Hardware																																
1.1) (Q5040) MK 66 ROCKET MOTOR (MOD 4) (1)																																
Prior Years Deliveries: 417193																																
	1	2018	NAVY	47.681	47.681	.000																										.000
✓	1	2018	NAVY	.472	.472	.000																										.000
	2	2019	NAVY	35.492	5.916	29.576	2.958	2.958	2.958	2.958	2.958	2.958	2.957	2.957	2.957	2.957																.000
✓	2	2019	NAVY	.073	.012	.061	.006	.006	.006	.006	.006	.006	.006	.006	.006	.007																.000
✓	2	2020	NAVY	38.331	6.388	31.943	3.194	3.194	3.194	3.194	3.194	3.194	3.194	3.195	3.195	3.195																.000
	2	2021	NAVY	38.374	.000	38.374	-	3.198	3.198	3.198	3.198	3.198	3.198	3.198	3.198	3.198	3.198	3.197	3.197													.000
✓	2	2021	NAVY	20.451	.000	20.451	-	1.704	1.704	1.704	1.704	1.704	1.704	1.704	1.704	1.704	1.705	1.705	1.705													.000
3) Rocket Launchers																																
3.2) (Q5900) LAU-61 G/A (2.75-Inch) DIGITAL ROCKET LAUNCHER																																
Prior Years Deliveries: 412																																
	3	2018	NAVY	.110	.110	.000																										.000
	3	2019	NAVY	.086	.086	.000																										.000
✓	3	2020	NAVY	.099	.099	.000																										.000
	3	2021	NAVY	.057	.027	.030	.005	.005	.005	.005	.005	.005																				.000
4) APKWS																																
4.1) (Q5896) APKWS G&C SECTIONS (3)																																
Prior Years Deliveries: 11909																																
	4	2018	NAVY	1.134	1.134	.000																										.000
✓	4	2018	NAVY	.077	.077	.000																										.000
	4	2019	NAVY	3.426 (10)	3.426	.000																										.000
✓	4	2019	NAVY	.090	.090	.000																										.000
	4	2020	NAVY	.730	.730	.000																										.000
✓	4	2020	NAVY	.393	.393	.000																										.000
	4	2021	NAVY	.850	.426	.424	.071	.071	.071	.071	.070	.070																				.000
✓	4	2021	NAVY	.236	.120	.116	.020	.020	.019	.019	.019	.019																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0151 / Airborne Rockets, All Types	**Aggregated Items:** Airborne Rockets, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	General Dynamics - Burlington, VT	3,600	300,000	552,000	0	0	0	0	0	9	18	27
2	TBD (5) - TBD			TBD	0	0	18	18	0	9	18	27
3	Arnold Defense - St. Louis, MO	9	142	285	0	6	0	6	0	6	12	18
4	BAE SYSTEMS (9) - NASHUA, NH	2,000	12,000	25,000	0	0	0	0	0	6	11	17

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Footnotes:

(5) (Q5040) MK66 Annual Production Rates are TBD and will be identified once the comptetitive contract is awarded in FY 2020.

(9) (Q5896) APKWS G&C SECTIONS : Minimum Sustaining Rate is satisfied by multi-service procurements.

(10) (Q5896) APKWS G&C SECTIONS FY19 Base original order in February 2019 with additional quantities ordered in September 2019. Delivery schedule reflects deliveries across the two orders.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	671.013	16.344	38.370	11.158	22.600	33.758	11.379	11.606	11.837	12.074	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	671.013	16.344	38.370	11.158	22.600	33.758	11.379	11.606	11.837	12.074	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**671.013**	**16.344**	**38.370**	**11.158**	**22.600**	**33.758**	**11.379**	**11.606**	**11.837**	**12.074**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2021 funding totals include $11.158M for Base and $22.6M for Overseas Contingency Operations (OCO) to replenish stocks depleted in support of Operation Inherent Resolve.

Provides procurement of 20MM/25MM ammunition that supports various aircraft gun systems for several Type/Model/Series (T/M/S) aircraft. Funding also includes the integrated logistics support, product engineering support and product improvement programs in support of the ammunition procurements.

The ammunition procurements fall into three categories: Target Practice (TP), High Explosive Incendiary (HEI), and inert. The TP and inert rounds are used for training. The HEI rounds are used for warfighting and training and also include Semi Armor Piercing High Explosive Incendiary(SAPHEI) rounds.

All 20MM/25MM ammunition is procured by the Joint Munitions Command, Rock Island, Illinois.

20MM rounds are procured in both linkless and linked configurations. The linkless (or bulk) rounds are used in the M61A1/A2 Gun Systems in the F/A-18 aircraft and the M197 Linkless Feed Gun System on the AH-1W/Z aircraft. The linked rounds are used in the M197 gun on MH60 aircraft for the Fixed Forward Firing Weapon (FFFW).

25MM rounds are procured in the linkless configuration and are used in the GAU-12 Gun System in the AV-8B aircraft and the GAU-22 Gun System in the F-35B&C.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	1 / Machine Gun Ammunition	P-5a, P-21			- / 671.013	- / 16.344	- / 38.370	- / 11.158	- / 22.600	- / 33.758
P-40	**Total Gross/Weapon System Cost**				**- / 671.013**	**- / 16.344**	**- / 38.370**	**- / 11.158**	**- / 22.600**	**- / 33.758**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding is required to procure 20MM Linkless TP requirements and inert rounds and associated support. Provides procurement of 20MM ammunition that supports various aircraft gun systems for several Type/Model/Series (T/M/S) aircraft.

OCO:
Direct War OCO funding in FY 2021 is required to replenish stocks depleted in support of Operation Inherent Resolve for the 20MM Linkless TP, TP-T, and HEI.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Machine Gun Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	671.013	16.344	38.370	11.158	22.600	33.758
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	671.013	16.344	38.370	11.158	22.600	33.758
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**671.013**	**16.344**	**38.370**	**11.158**	**22.600**	**33.758**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - Machine Gun Ammunition Cost																		
Recurring Cost																		
1.1.1) (Q4010) 20MM LINKLESS, TP(†)	16.76	13,366,508	223.992	-	-	-	11.29	2,123,383	23.973	11.50	734,609	8.448	11.50	1,086,956	12.500	11.50	1,821,565	20.948
1.1.2) (Q4050) 20MM LINKLESS, HEI(†)	31.91	4,612,710	147.189	23.14	216,094	5.000	23.60	330,508	7.800	-	-	0.000	24.10	315,352	7.600	24.10	315,352	7.600
1.1.3) (Q4060) 20MM LINKED, TP(†)	28.32	3,808,851	107.855	17.41	496,037	8.636	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) (Q4070) 20MM LINKED, HEI	112.39	673,448	75.690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.5) (Q4080) 20MM LINKLESS, TP-T(†) (1)	16.64	1,295,281	21.551	-	-	-	17.90	223,462	4.000	-	-	0.000	18.30	136,612	2.500	18.30	136,612	2.500
1.1.6) (Q4090) 25MM LINKLESS, TP	17.99	587,723	10.574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.7) (Q4150) 25MM LINKLESS, HEI	52.63	405,570	21.346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.8) (Q4200) INERT ROUND(†)	26.27	44,841	1.178	21.48	4,655	0.100	21.91	4,564	0.100	22.35	4,474	0.100	-	-	-	22.35	4,474	0.100
Subtotal: Recurring Cost	-	-	*609.375*	-	-	*13.736*	-	-	*35.873*	-	-	*8.548*	-	-	*22.600*	-	-	*31.148*
Subtotal: Hardware - Machine Gun Ammunition Cost	**-**	**-**	***609.375***	**-**	**-**	***13.736***	**-**	**-**	***35.873***	**-**	**-**	***8.548***	**-**	**-**	***22.600***	**-**	**-**	***31.148***
Support - Product Improvement Cost																		
2.1) (Q4850) Machine Gun Ammunition	-	-	13.281	-	-	0.636	-	-	0.563	-	-	0.603	-	-	-	-	-	0.603

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0155 / Machine Gun Ammunition	Item Number / Title [DODIC]: 1 / Machine Gun Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Support - Product Improvement Cost	-	-	***13.281***	-	-	***0.636***	-	-	***0.563***	-	-	***0.603***	-	-	-	-	-	***0.603***
Support - Integrated Logistics Cost																		
3.1) (Q4800) Machine Gun Ammunition	-	-	10.022	-	-	0.608	-	-	0.563	-	-	0.603	-	-	-	-	-	0.603
Subtotal: Support - Integrated Logistics Cost	-	-	***10.022***	-	-	***0.608***	-	-	***0.563***	-	-	***0.603***	-	-	-	-	-	***0.603***
Support - Production Engineering Cost																		
4.1) (Q4830) Machine Gun Ammunition	-	-	38.335	-	-	1.364	-	-	1.371	-	-	1.404	-	-	-	-	-	1.404
Subtotal: Support - Production Engineering Cost	-	-	***38.335***	-	-	***1.364***	-	-	***1.371***	-	-	***1.404***	-	-	-	-	-	***1.404***
Gross/Weapon System Cost	-	-	**671.013**	-	-	**16.344**	-	-	**38.370**	-	-	**11.158**	-	-	**22.600**	-	-	**33.758**

Remarks:
OCO funding in FY 2021 includes $22.6M to replenish stocks depleted in support of Operation Inherent Resolve for the 20MM Linkless TP, TP-T, and HEI.

(†) indicates the presence of a P-5a

Footnotes:
(1) [(Q4080) 20MM LINKLESS, TP-T]: FY 2022 through FY 2025 funding reflects procurement of items every other year to obtain the most economical buys.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0155 / Machine Gun Ammunition	Item Number / Title [DODIC]: 1 / Machine Gun Ammunition

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) (Q4010) 20MM LINKLESS, TP(†)		2018	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Sep 2018	Feb 2020	899,448	10.87	Y		Apr 2018
1.1.1) (Q4010) 20MM LINKLESS, TP(†)		2020	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2020	Jul 2021	194,508	11.29	Y		Apr 2018
1.1.1) (Q4010) 20MM LINKLESS, TP(†)	✓	2020	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2020	Jul 2021	1,928,875	11.29	Y		Apr 2018
1.1.1) (Q4010) 20MM LINKLESS, TP(†)		2021	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2021	Jul 2022	734,609	11.50	Y		Apr 2018
1.1.1) (Q4010) 20MM LINKLESS, TP(†)	✓	2021	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2021	Jul 2022	1,086,956	11.50	Y		Apr 2018
1.1.2) (Q4050) 20MM LINKLESS, HEI(†)	✓	2016	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2016	Sep 2019	162,737	22.14	Y		Sep 2013
1.1.2) (Q4050) 20MM LINKLESS, HEI(†)	✓	2019	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2019	Jul 2020	216,094	23.14	Y		Sep 2018
1.1.2) (Q4050) 20MM LINKLESS, HEI(†)	✓	2020	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2020	Jul 2021	330,508	23.60	Y		Apr 2018
1.1.2) (Q4050) 20MM LINKLESS, HEI(†)	✓	2021	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2021	Jul 2022	315,352	24.10	Y		Apr 2018
1.1.3) (Q4060) 20MM LINKED, TP(†)		2017	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Sep 2017	Jun 2019	321,578	16.73	Y		Sep 2013
1.1.3) (Q4060) 20MM LINKED, TP(†)		2019	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2019	Jul 2020	496,037	17.41	Y		Apr 2018
1.1.5) (Q4080) 20MM LINKLESS, TP-T(†)		2018	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Sep 2018	Oct 2019	87,209	17.20	Y		Apr 2018
1.1.5) (Q4080) 20MM LINKLESS, TP-T(†)	✓	2020	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2020	Jul 2021	223,462	17.90	Y		Apr 2018
1.1.5) (Q4080) 20MM LINKLESS, TP-T(†)	✓	2021	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2021	Jul 2022	136,612	18.30	Y		Apr 2018
1.1.8) (Q4200) INERT ROUND		2018	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Mar 2019	Jan 2020	4,748	21.06	Y		Jul 2018
1.1.8) (Q4200) INERT ROUND		2019	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Mar 2019	Jan 2020	4,655	21.48	Y		Jul 2018
1.1.8) (Q4200) INERT ROUND	✓	2020	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2020	Jul 2021	4,564	21.91	Y		Jul 2018

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0155 / Machine Gun Ammunition	Item Number / Title [DODIC]: 1 / Machine Gun Ammunition

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.8) (Q4200) INERT ROUND		2021	GENERAL DYNAMICS OTS/ATK / MARION, IL / LAKE CITY, MO	C / FFP	JMC ROCK ISLAND, ILLINOIS	Jul 2021	Jul 2022	4,474	22.35	Y		Jul 2018

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition | **Item Number / Title [DODIC]:** 1 / Machine Gun Ammunition

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) (Q4010) 20MM LINKLESS, TP																															
Prior Years Deliveries: 12467060																															
	1	2018	NAVY	.899	.000	.899																									.899
	1	2020	NAVY	.195	.000	.195																									.195
✓	1	2020	NAVY	1.929	.000	1.929																									1.929
	1	2021	NAVY	.735	.000	.735																									.735
✓	1	2021	NAVY	1.087	.000	1.087																									1.087
1.1.2) (Q4050) 20MM LINKLESS, HEI																															
Prior Years Deliveries: 4449973																															
✓	2	2016	NAVY	.163	.000	.163										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.163
✓	2	2019	NAVY	.216	.000	.216																									.216
✓	2	2020	NAVY	.331	.000	.331																									.331
✓	2	2021	NAVY	.315	.000	.315																									.315
1.1.3) (Q4060) 20MM LINKED, TP																															
Prior Years Deliveries: 3487273																															
	3	2017	NAVY	.322	.000	.322																								A -	.322
	3	2019	NAVY	.496	.000	.496																									.496
1.1.5) (Q4080) 20MM LINKLESS, TP-T (1)																															
Prior Years Deliveries: 1208072																															
	4	2018	NAVY	.087	.000	.087																									.087
✓	4	2020	NAVY	.223	.000	.223																									.223
✓	4	2021	NAVY	.137	.000	.137																									.137
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0155 / Machine Gun Ammunition

Item Number / Title [DODIC]: 1 / Machine Gun Ammunition

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) (Q4010) 20MM LINKLESS, TP																															
Prior Years Deliveries: 12467060																															
	1	2018	NAVY	.899	.000	.899												A -	-	-	-	-	-	-	-	-	-	-	-	-	.899
	1	2020	NAVY	.195	.000	.195																									.195
✓	1	2020	NAVY	1.929	.000	1.929																									1.929
	1	2021	NAVY	.735	.000	.735																									.735
✓	1	2021	NAVY	1.087	.000	1.087																									1.087
1.1.2) (Q4050) 20MM LINKLESS, HEI																															
Prior Years Deliveries: 4449973																															
✓	2	2016	NAVY	.163	.000	.163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.089	.074
✓	2	2019	NAVY	.216	.000	.216																						A -	-	-	.216
✓	2	2020	NAVY	.331	.000	.331																									.331
✓	2	2021	NAVY	.315	.000	.315																									.315
1.1.3) (Q4060) 20MM LINKED, TP																															
Prior Years Deliveries: 3487273																															
	3	2017	NAVY	.322	.000	.322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.082	.100	.100	.039	.000	
	3	2019	NAVY	.496	.000	.496																						A -	-	-	.496
1.1.5) (Q4080) 20MM LINKLESS, TP-T (1)																															
Prior Years Deliveries: 1208072																															
	4	2018	NAVY	.087	.000	.087												A -	-	-	-	-	-	-	-	-	-	-	-	-	.087
✓	4	2020	NAVY	.223	.000	.223																									.223
✓	4	2021	NAVY	.137	.000	.137																									.137
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0155 / Machine Gun Ammunition

Item Number / Title [DODIC]: 1 / Machine Gun Ammunition

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) (Q4010) 20MM LINKLESS, TP																															
Prior Years Deliveries: 12467060																															
	1	2018	NAVY	.899	.000	.899	-	-	-	-	.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	.075									.000
	1	2020	NAVY	.195	.000	.195										A -	-	-	-	-	-	-	-	-	-	-	-	.016	.016	.016	.146
✓	1	2020	NAVY	1.929	.000	1.929										A -	-	-	-	-	-	-	-	-	-	-	-	.161	.161	.161	1.447
	1	2021	NAVY	.735	.000	.735																						A -	-	-	.735
✓	1	2021	NAVY	1.087	.000	1.087																						A -	-	-	1.087
1.1.2) (Q4050) 20MM LINKLESS, HEI																															
Prior Years Deliveries: 4449973																															
✓	2	2016	NAVY	.163	.089	.074	.074																								.000
✓	2	2019	NAVY	.216	.000	.216	-	-	-	-	-	-	-	-	-	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018				.000
✓	2	2020	NAVY	.331	.000	.331										A -	-	-	-	-	-	-	-	-	-	-	-	.028	.028	.028	.248
✓	2	2021	NAVY	.315	.000	.315																						A -	-	-	.315
1.1.3) (Q4060) 20MM LINKED, TP																															
Prior Years Deliveries: 3487273																															
	3	2017	NAVY	.322	.322	.000																									.000
	3	2019	NAVY	.496	.000	.496	-	-	-	-	-	-	-	-	-	.041	.041	.041	.041	.041	.041	.041	.041	.041	.041	.042	.042				.000
1.1.5) (Q4080) 20MM LINKLESS, TP-T (1)																															
Prior Years Deliveries: 1208072																															
	4	2018	NAVY	.087	.000	.087	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007													.000
✓	4	2020	NAVY	.223	.000	.223										A -	-	-	-	-	-	-	-	-	-	-	-	.019	.019	.019	.168
✓	4	2021	NAVY	.137	.000	.137																						A -	-	-	.137
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Machine Gun Ammunition

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) (Q4010) 20MM LINKLESS, TP																															
Prior Years Deliveries: 12467060																															
	1	2018	NAVY	.899	.899	.000																									.000
	1	2020	NAVY	.195	.049	.146	.016	.016	.016	.016	.016	.016	.016	.016	.016																.000
✓	1	2020	NAVY	1.929	.482	1.447	.161	.161	.161	.161	.161	.161	.161	.161	.161																.000
	1	2021	NAVY	.735	.000	.735	-	-	-	-	-	-	-	-	-	.061	.061	.061	.061	.061	.061	.061	.061	.061	.061	.061	.061				.000
✓	1	2021	NAVY	1.087	.000	1.087	-	-	-	-	-	-	-	-	-	.091	.091	.091	.091	.091	.091	.091	.091	.091	.091	.091	.091				.000
1.1.2) (Q4050) 20MM LINKLESS, HEI																															
Prior Years Deliveries: 4449973																															
✓	2	2016	NAVY	.163	.163	.000																									.000
✓	2	2019	NAVY	.216	.216	.000																									.000
✓	2	2020	NAVY	.331	.083	.248	.028	.028	.028	.028	.028	.028	.028	.028	.028																.000
✓	2	2021	NAVY	.315	.000	.315	-	-	-	-	-	-	-	-	-	.026	.026	.026	.026	.026	.026	.026	.026	.026	.026	.026	.026				.000
1.1.3) (Q4060) 20MM LINKED, TP																															
Prior Years Deliveries: 3487273																															
	3	2017	NAVY	.322	.322	.000																									.000
	3	2019	NAVY	.496	.496	.000																									.000
1.1.5) (Q4080) 20MM LINKLESS, TP-T (1)																															
Prior Years Deliveries: 1208072																															
	4	2018	NAVY	.087	.087	.000																									.000
✓	4	2020	NAVY	.223	.056	.168	.019	.019	.019	.019	.019	.019	.019	.019	.019																.000
✓	4	2021	NAVY	.137	.000	.137	-	-	-	-	-	-	-	-	-	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011	.011				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0155 / Machine Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Machine Gun Ammunition

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GENERAL DYNAMICS OTS/ ATK - MARION, IL / LAKE CITY, MO	500,000	2,350,000	3,350,000	0	0	0	0	0	9	12	21
2	GENERAL DYNAMICS OTS/ ATK - MARION, IL / LAKE CITY, MO	125,000	1,250,000	2,000,000	0	0	0	0	0	10	12	22
3	GENERAL DYNAMICS OTS/ ATK - MARION, IL / LAKE CITY, MO	200,000	800,000	1,200,000	0	0	0	0	0	10	12	22
4	GENERAL DYNAMICS OTS/ ATK - MARION, IL / LAKE CITY, MO	50,000	100,000	1,440,000	0	0	0	0	0	7	12	19

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0160 / Practice Bombs

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	947.327	43.971	42.939	51.409	0.000	51.409	52.645	53.785	54.864	55.961	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	947.327	43.971	42.939	51.409	0.000	51.409	52.645	53.785	54.864	55.961	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**947.327**	**43.971**	**42.939**	**51.409**	**0.000**	**51.409**	**52.645**	**53.785**	**54.864**	**55.961**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The purpose of the Practice Bombs budget is to procure a variety of low cost alternative practice bombs components to be utilized in place of live, High Explosive bomb components during training in order to improve aircrew proficiency. The practice bombs support training for ground crews and aviators flying various Navy and Marine Corps aircraft. The munitions procured through this PE/BLI are procured by the Joint Munitions Command, the Single Manager for Conventional Ammunition, with the exception of the Laser Guided Training Round, which is procured by NAVAIR.

The MK-76 is a low cost 25lb tear dropped shaped practice bomb that simulates a MK-82 low drag configuration used by the Navy. The MK-82 is an unguided, low-drag practice bomb. The BLU-109 Inert is a full-scale 2,000lb inert Practice Bomb. Bomb bodies are filled with an inert material and have the same weight, size, center of gravity and ballistics of the live bomb configurations.

The Laser Guided Training Round (LGTR) simulates Laser Guided Weapons and provides a low cost alternative to the use of full scale munitions. The LGTR is capable of replicating the kinematics of LGBs and is suitable for launch from all Navy and Marine Corps aircraft used to deploy LGBs. The round allows the aviator to exercise the coordination between the aircrew and the laser designator and to emulate delivery options and multi-aircraft tactics. The development and retention of this skill set is extensive and the LGTR provides the capability to exercise the system in a cost effective manner.

The Miscellaneous Items line includes low cost items such as M70 series cables, MK-89 Adapters, Landyards, Lugs, Nose Plugs, containers, etc.

The Product Improvement Program (PIP) cost element funds efforts to investigate and incorporate design changes to address manufacturing, production and minor technology insertions to modify and improve practice stores system reliability and producability.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0160 / Practice Bombs

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	1 / Practice Bombs	P-5a, P-21			- / 947.327	- / 43.971	- / 42.939	- / 51.409	- / 0.000	- / 51.409
P-40	**Total Gross/Weapon System Cost**				**- / 947.327**	**- / 43.971**	**- / 42.939**	**- / 51.409**	**- / 0.000**	**- / 51.409**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 baseline funding is provided for training munitions requirements that are based on the needs of the Fleet Aviation Training and Tactical Squadrons and are updated with actual expenditures on an annual basis. The munitions are essential in training and retaining weapons delivery proficiency.

This budget supports critical Navy Title 10 war reserve/operational, training, and test requirements as identified within the DoD Instruction 3000.04 (Munitions Requirements Process) and OPNAV INST 8011.9 (Navy Munitions Requirements Process). Practice Bomb procurements provide the Fleet subscale and/or inert stores in lieu of significantly more expensive full scale and/or high explosive stores procured with General Purpose Bombs funding; thereby reducing the overall cost in achieving fleet training readiness levels.

The annual disbursement of training munitions is done via a Non-Combat Expenditure Allocation (NCEA) and provides the individual units with an allocation under which they plan their annual training syllabuses. Additionally, training/inert munitions support the development, fielding, safety, and quality assurance of Navy munitions and equipment throughout their life cycle.

These munitions support the individual and collective training of Active and Reserve Component forces. The annual expenditures of practice stores prepares Naval Aviation units for deployment and is the largest driver of current and future munitions procurement. Procurements are primarily designed to replenish the practice bombs weapons used each year to achieve required readiness levels. Unlike procurement of capital assets, a large percentage of weapons are consumed in annual fleet training expenditures; thereby reducing the ability to simply slide procurements a year in response to budget reductions. Barring a reduction in fleet training expenditures and the correlating readiness degradation, any reductions in practice bomb procurements in a given year will be addressed through increased procurements in the out years to restore inventory to a level adequate to support NCEA and fleet readiness.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0160 / Practice Bombs	**Item Number / Title [DODIC]:** 1 / Practice Bombs
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	947.327	43.971	42.939	51.409	0.000	51.409
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	947.327	43.971	42.939	51.409	0.000	51.409
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**947.327**	**43.971**	**42.939**	**51.409**	**0.000**	**51.409**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - Practice Bombs Cost																		
Recurring Cost																		
1.1.1) Q1010 MK-76(†)	73.07	267,053	19.513	76.79	184,688	14.183	78.34	43,145	3.380	79.91	64,447	5.150	-	-	-	79.91	64,447	5.150
1.1.2) Q1040 MK-82 INERT(†)	2,256.65	16,154	36.454	2,799.08	3,022	8.459	2,855.06	2,676	7.640	2,912.16	2,739	7.976	-	-	-	2,912.16	2,739	7.976
1.1.3) Q1050 BLU-109 INERT(†) (1)	24,409.45	381	9.300	28,635.03	137	3.923	25,857.92	114	2.948	26,375.08	154	4.062	-	-	-	26,375.08	154	4.062
Subtotal: Recurring Cost	-	-	*65.267*	-	-	*26.565*	-	-	*13.968*	-	-	*17.188*	-	-	-	-	-	*17.188*
Subtotal: Hardware - Practice Bombs Cost	**-**	**-**	***65.267***	**-**	**-**	***26.565***	**-**	**-**	***13.968***	**-**	**-**	***17.188***	**-**	**-**	**-**	**-**	**-**	***17.188***
Hardware - Precision Guided Practice Bombs Cost																		
Recurring Cost																		
2.1.1) Q1300 LGTR(†)	3,209.66	62,164	199.525	3,701.00	3,866	14.308	3,774.88	5,987	22.600	3,850.50	7,187	27.674	-	-	-	3,850.50	7,187	27.674
Subtotal: Recurring Cost	-	-	*199.525*	-	-	*14.308*	-	-	*22.600*	-	-	*27.674*	-	-	-	-	-	*27.674*
Subtotal: Hardware - Precision Guided Practice Bombs Cost	**-**	**-**	***199.525***	**-**	**-**	***14.308***	**-**	**-**	***22.600***	**-**	**-**	***27.674***	**-**	**-**	**-**	**-**	**-**	***27.674***
Hardware - Miscellaneous Cost																		
Recurring Cost																		
3.1.1) Q1062 Miscellaneous Items	-	-	5.915	-	-	-	-	-	0.682	-	-	0.695	-	-	-	-	-	0.695
Subtotal: Recurring Cost	-	-	*5.915*	-	-	-	-	-	*0.682*	-	-	*0.695*	-	-	-	-	-	*0.695*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0160 / Practice Bombs	Item Number / Title [DODIC]: 1 / Practice Bombs
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - Miscellaneous Cost	-	-	***5.915***	-	-	-	-	-	***0.682***	-	-	***0.695***	-	-	-	-	-	***0.695***
Hardware - Prior Years Cost																		
Non Recurring Cost																		
4.1.1) Prior Years	-	-	635.595	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*635.595*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Prior Years Cost	-	-	***635.595***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Integrated Logistics Cost																		
5.1) Q1800 Practice Bombs ILS	-	-	0.604	-	-	0.124	-	-	0.098	-	-	0.085	-	-	-	-	-	0.085
5.2) Q1800 Precision Guided Practice Bombs ILS	-	-	1.170	-	-	0.455	-	-	0.135	-	-	0.134	-	-	-	-	-	0.134
Subtotal: Support - Integrated Logistics Cost	-	-	***1.774***	-	-	***0.579***	-	-	***0.233***	-	-	***0.219***	-	-	-	-	-	***0.219***
Support - Production Engineering Cost																		
6.1) Q1830 Practice Bombs PES	-	-	8.298	-	-	0.981	-	-	1.138	-	-	1.153	-	-	-	-	-	1.153
6.2) Q1830 Precision Guided Practice Bombs PES	-	-	13.688	-	-	1.454	-	-	0.984	-	-	1.010	-	-	-	-	-	1.010
Subtotal: Support - Production Engineering Cost	-	-	***21.986***	-	-	***2.435***	-	-	***2.122***	-	-	***2.163***	-	-	-	-	-	***2.163***
Support - Miscellaneous Support Cost																		
7.1) Q1850 Product Improvement Program (PIP) (2)	-	-	15.095	-	-	-	-	-	3.183	-	-	3.318	-	-	-	-	-	3.318
7.2) Q1894 Gaging	-	-	2.170	-	-	0.084	-	-	0.151	-	-	0.152	-	-	-	-	-	0.152
Subtotal: Support - Miscellaneous Support Cost	-	-	***17.265***	-	-	***0.084***	-	-	***3.334***	-	-	***3.470***	-	-	-	-	-	***3.470***
Gross/Weapon System Cost	-	-	**947.327**	-	-	**43.971**	-	-	**42.939**	-	-	**51.409**	-	-	**0.000**	-	-	**51.409**

(†) indicates the presence of a P-5a

Footnotes:

(1) FY 2021 Qty increase is necessary to meet inventory objectives based on current training requirements.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0160 / Practice Bombs	**Item Number / Title [DODIC]:** 1 / Practice Bombs
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

(2) Q1850 Increases in Product Improvement Program (PIP) funding across the FYDP is required to address service life modification and obsolescence of LGTR production sub-assemblies and related support equipment.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0160 / Practice Bombs	Item Number / Title [DODIC]: 1 / Practice Bombs

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Q1010 MK-76(†)		2018	Delfasco, LLC / Afton,TN	C / FFP	JMC, Rock Island, IL	Mar 2018	Mar 2020	46,353	77.80	Y		Feb 2013
1.1.1) Q1010 MK-76(†)		2019	Delfasco, LLC / Afton,TN	C / FFP	JMC, Rock Island, IL	Mar 2019	Mar 2021	184,688	76.79	Y		Feb 2013
1.1.1) Q1010 MK-76(†)		2020	Delfasco, LLC / Afton,TN	C / FFP	JMC, Rock Island, IL	Mar 2020	Mar 2022	43,145	78.34	Y		Feb 2013
1.1.1) Q1010 MK-76(†)		2021	TBD / TBD	C / FFP	JMC, Rock Island, IL	Mar 2021	Mar 2023	64,447	79.91	Y		Jun 2019
1.1.2) Q1040 MK-82 INERT(†)		2017	General Dynamics / Garland, TX / MCAAP	SS / FP	JMC, Rock Island, IL	Apr 2017	Dec 2019	4,848	2,118.10	Y		Nov 2013
1.1.2) Q1040 MK-82 INERT(†)		2018	General Dynamics / Garland, TX / MCAAP	SS / FP	JMC, Rock Island, IL	Apr 2018	Dec 2020	2,641	2,431.28	Y		Nov 2013
1.1.2) Q1040 MK-82 INERT(†)		2019	General Dynamics / Garland, TX / MCAAP	SS / FP	JMC, Rock Island, IL	Apr 2019	Dec 2021	3,022	2,799.08	Y		Nov 2013
1.1.2) Q1040 MK-82 INERT(†)		2020	General Dynamics / Garland, TX / MCAAP	SS / FP	JMC, Rock Island, IL	Apr 2020	Dec 2022	2,676	2,855.06	Y		Nov 2013
1.1.2) Q1040 MK-82 INERT(†)		2021	General Dynamics / Garland, TX / MCAAP	SS / FP	JMC, Rock Island, IL	Apr 2021	Dec 2023	2,739	2,912.16	Y		Nov 2013
1.1.3) Q1050 BLU-109 INERT		2016	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2016	Jan 2019	203	24,072.00	Y		Apr 2015
1.1.3) Q1050 BLU-109 INERT		2017	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2017	Jan 2020	106	24,130.77	Y		Apr 2015
1.1.3) Q1050 BLU-109 INERT		2018	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2018	Jan 2021	72	24,702.20	Y		Apr 2015
1.1.3) Q1050 BLU-109 INERT		2019	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2019	Jan 2022	137	28,635.03	Y		Apr 2015
1.1.3) Q1050 BLU-109 INERT		2020	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2020	Jan 2023	114	25,857.92	Y		Apr 2015
1.1.3) Q1050 BLU-109 INERT		2021	EllWood National Forge / Irvine, PA/MCAAP	C / FFP	JMC, Rock Island, IL	Jan 2021	Jan 2024	154	26,375.08	Y		Apr 2015
2.1.1) Q1300 LGTR(†)		2018	Lockheed Martin Corporation LGTR / Archbald, PA	SS / IDIQ	NAVAIR, Pax River, MD	May 2018	Jan 2020	8,226	3,113.30	Y		Feb 2015
2.1.1) Q1300 LGTR(†)		2019	Lockheed Martin Corporation LGTR / Archbald, PA	SS / IDIQ	NAVAIR, Pax River, MD	May 2019	Jan 2021	3,866	3,701.00	Y		Feb 2015
2.1.1) Q1300 LGTR(†)		2020	Lockheed Martin Corporation LGTR / Archbald, PA	SS / IDIQ	NAVAIR, Pax River, MD	Mar 2020	Nov 2021	2,887	3,774.88	Y		Feb 2015
2.1.1) Q1300 LGTR(†)	✓	2020	Lockheed Martin Corporation LGTR / Archbald, PA	SS / IDIQ	NAVAIR, Pax River, MD	Mar 2020	Nov 2021	3,100	3,774.88	Y		Feb 2015
2.1.1) Q1300 LGTR(†)		2021	Lockheed Martin Corporation LGTR / Archbald, PA	SS / IDIQ	NAVAIR, Pax River	May 2021	Jan 2023	7,187	3,850.50	Y		Feb 2015

(†) indicates the presence of a P-21

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0160 / Practice Bombs	Item Number / Title [DODIC]: 1 / Practice Bombs

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0160 / Practice Bombs | **Item Number / Title [DODIC]:** 1 / Practice Bombs

Cost Elements (Units in Thousands)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016												Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) Q1010 MK-76																															
Prior Years Deliveries: 220700																															
	1	2018	NAVY	46.353	.000	46.353																									46.353
	1	2019	NAVY	184.688	.000	184.688																									184.688
	1	2020	NAVY	43.145	.000	43.145																									43.145
	2	2021	NAVY	64.447	.000	64.447																									64.447
1.1.2) Q1040 MK-82 INERT																															
Prior Years Deliveries: 8665																															
	3	2017	NAVY	4.848	.000	4.848																			A -	-	-	-	-	-	4.848
	3	2018	NAVY	2.641	.000	2.641																									2.641
	3	2019	NAVY	3.022	.000	3.022																									3.022
	3	2020	NAVY	2.676	.000	2.676																									2.676
	3	2021	NAVY	2.739	.000	2.739																									2.739
2.1.1) Q1300 LGTR																															
Prior Years Deliveries: 53938																															
	4	2018	NAVY	8.226	.000	8.226																									8.226
	4	2019	NAVY	3.866	.000	3.866																									3.866
	4	2020	NAVY	2.887	.000	2.887																									2.887
✓	4	2020	NAVY	3.100	.000	3.100																									3.100
	4	2021	NAVY	7.187	.000	7.187																									7.187
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0160 / Practice Bombs | **Item Number / Title [DODIC]:** 1 / Practice Bombs

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) Q1010 MK-76																															
Prior Years Deliveries: 220700																															
	1	2018	NAVY	46.353	.000	46.353						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.353
	1	2019	NAVY	184.688	.000	184.688																		A -	-	-	-	-	-	-	184.688
	1	2020	NAVY	43.145	.000	43.145																									43.145
	2	2021	NAVY	64.447	.000	64.447																									64.447
1.1.2) Q1040 MK-82 INERT																															
Prior Years Deliveries: 8665																															
	3	2017	NAVY	4.848	.000	4.848	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.848
	3	2018	NAVY	2.641	.000	2.641							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.641
	3	2019	NAVY	3.022	.000	3.022																			A -	-	-	-	-	-	3.022
	3	2020	NAVY	2.676	.000	2.676																									2.676
	3	2021	NAVY	2.739	.000	2.739																									2.739
2.1.1) Q1300 LGTR																															
Prior Years Deliveries: 53938																															
	4	2018	NAVY	8.226	.000	8.226								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.226
	4	2019	NAVY	3.866	.000	3.866																				A -	-	-	-	-	3.866
	4	2020	NAVY	2.887	.000	2.887																									2.887
✓	4	2020	NAVY	3.100	.000	3.100																									3.100
	4	2021	NAVY	7.187	.000	7.187																									7.187
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0160 / Practice Bombs | **Item Number / Title [DODIC]:** 1 / Practice Bombs

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) Q1010 MK-76																															
Prior Years Deliveries: 220700																															
	1	2018	NAVY	46.353	.000	46.353	-	-	-	-	-	9.408	9.408	9.408	9.408	8.721															.000
	1	2019	NAVY	184.688	.000	184.688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.391	15.391	15.391	15.391	15.391	15.391	15.391	76.951
	1	2020	NAVY	43.145	.000	43.145						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43.145
	2	2021	NAVY	64.447	.000	64.447																		A -	-	-	-	-	-	-	64.447
1.1.2) Q1040 MK-82 INERT																															
Prior Years Deliveries: 8665																															
	3	2017	NAVY	4.848	.000	4.848	-	-	2.424	2.424																					.000
	3	2018	NAVY	2.641	.000	2.641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.320	1.321									.000
	3	2019	NAVY	3.022	.000	3.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.022
	3	2020	NAVY	2.676	.000	2.676							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.676
	3	2021	NAVY	2.739	.000	2.739																			A -	-	-	-	-	-	2.739
2.1.1) Q1300 LGTR																															
Prior Years Deliveries: 53938																															
	4	2018	NAVY	8.226	.000	8.226	-	-	-	.685	.685	.685	.685	.685	.685	.686	.686	.686	.686	.686	.686										.000
	4	2019	NAVY	3.866	.000	3.866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.322	.322	.322	.322	.322	.322	.322	.322	.322	.968
	4	2020	NAVY	2.887	.000	2.887						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.887
✓	4	2020	NAVY	3.100	.000	3.100						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.100
	4	2021	NAVY	7.187	.000	7.187																				A -	-	-	-	-	7.187
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0160 / Practice Bombs | **Item Number / Title [DODIC]:** 1 / Practice Bombs

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022															Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) Q1010 MK-76																															
Prior Years Deliveries: 220700																															
	1	2018	NAVY	46.353	46.353	.000																									.000
	1	2019	NAVY	184.688	107.737	76.951	15.391	15.390	15.390	15.390	15.390																				.000
	1	2020	NAVY	43.145	.000	43.145	-	-	-	-	-	3.596	3.596	3.596	3.596	3.596	3.595	3.595	3.595	3.595	3.595	3.595	3.595								.000
	2	2021	NAVY	64.447	.000	64.447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.377	5.370	5.370	5.370	5.370	5.370	5.370	26.850
1.1.2) Q1040 MK-82 INERT																															
Prior Years Deliveries: 8665																															
	3	2017	NAVY	4.848	4.848	.000																									.000
	3	2018	NAVY	2.641	2.641	.000																									.000
	3	2019	NAVY	3.022	.000	3.022	-	-	.514	.514	.514	.514	.514	.452																	.000
	3	2020	NAVY	2.676	.000	2.676	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.446	.446	.446	.446	.446	.446					.000
	3	2021	NAVY	2.739	.000	2.739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.739
2.1.1) Q1300 LGTR																															
Prior Years Deliveries: 53938																															
	4	2018	NAVY	8.226	8.226	.000																									.000
	4	2019	NAVY	3.866	2.898	.968	.322	.323	.323																						.000
	4	2020	NAVY	2.887	.000	2.887	-	.241	.241	.241	.241	.241	.241	.241	.240	.240	.240	.240	.240												.000
✓	4	2020	NAVY	3.100	.000	3.100	-	.259	.259	.259	.259	.258	.258	.258	.258	.258	.258	.258	.258												.000
	4	2021	NAVY	7.187	.000	7.187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.598	.599	.599	.599	.599	.599	.599	.599	.599	1.797
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0160 / Practice Bombs	**Item Number / Title [DODIC]:** 1 / Practice Bombs

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) Q1010 MK-76																															
Prior Years Deliveries: 220700																															
	1	2018	NAVY	46.353	46.353	.000																									.000
	1	2019	NAVY	184.688	184.688	.000																									.000
	1	2020	NAVY	43.145	43.145	.000																									.000
	2	2021	NAVY	64.447	37.597	26.850	5.370	5.370	5.370	5.370	5.370																				.000
1.1.2) Q1040 MK-82 INERT																															
Prior Years Deliveries: 8665																															
	3	2017	NAVY	4.848	4.848	.000																									.000
	3	2018	NAVY	2.641	2.641	.000																									.000
	3	2019	NAVY	3.022	3.022	.000																									.000
	3	2020	NAVY	2.676	2.676	.000																									.000
	3	2021	NAVY	2.739	.000	2.739	-	-	.456	.456	.456	.456	.456	.459																	.000
2.1.1) Q1300 LGTR																															
Prior Years Deliveries: 53938																															
	4	2018	NAVY	8.226	8.226	.000																									.000
	4	2019	NAVY	3.866	3.866	.000																									.000
	4	2020	NAVY	2.887	2.887	.000																									.000
✓	4	2020	NAVY	3.100	3.100	.000																									.000
	4	2021	NAVY	7.187	5.390	1.797	.599	.599	.599																						.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0160 / Practice Bombs	**Item Number / Title [DODIC]:** 1 / Practice Bombs

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Delfasco, LLC - Afton,TN	20,000	113,000	300,000	0	0	0	0	0	6	24	30
2	TBD - TBD	20,000	113,000	300,000	0	6	24	30	0	6	24	30
3	General Dynamics - Garland, TX / MCAAP	21,359	38,544	100,200	0	0	0	0	0	7	32	39
4	Lockheed Martin Corporation LGTR - Archbald, PA	4,000	8,400	22,000	0	0	0	0	0	6	20	26

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	863.443	64.056	52.941	64.694	3.927	68.621	69.937	71.144	72.342	74.110	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	863.443	64.056	52.941	64.694	3.927	68.621	69.937	71.144	72.342	74.110	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**863.443**	**64.056**	**52.941**	**64.694**	**3.927**	**68.621**	**69.937**	**71.144**	**72.342**	**74.110**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2021 funding totals include $64.694 million for Base and $3.927 million for Overseas Contingency Operations (OCO).

Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) program's mission is to procure 676 distinct service life-limited explosive/energetic devices. These devices perform critical safety functions in support of flight operations. Specifically, these devices are in US Navy Naval Aircrew Common Ejection Seat (NACES), Aircraft safety of flight components, aircrew survival equipment and weapon systems release systems. The CAD/PAD yearly requirement is modeled on the total reported active aircraft as per the Office of the Naval Operations' (OPNAV). The quantity for these unique requirements vary due to the distinct energetics of each CAD/PAD service life. Extending service life of CAD/PAD components beyond recommended use due to unavailability can pose a significant safety risk to aircrew.

Prior year reductions of inventory pipeline and decreased stock levels have taken some individual stock availability down to zero. The reduced levels have significantly increased the need for service life extensions on safety critical components. The budget increase beginning in FY 2021 will help to rebuild pipeline over time which decreases service life extensions to improve aircraft readiness and aircrew safety.

Hardware-Stores Release: Stores Release cartridges are utilized to release weapons and other stores from aircraft. The CCU-107 is utilized to release "light" weapons/stores from aircraft. The CCU-45 (MD65) is utilized to release "heavy" weapons/stores.

Hardware-Safety: Items such as safety/arming devices, sequence controls, shielded mild detonating cords, gas generators, initiators, thrusters, fire extinguisher cartridges, thermal batteries, rocket motors, catapults, and more, are used in aircraft emergency escape and safety systems. These explosives/energetics have finite service lives and are replaced during scheduled maintenance. An aircraft may be grounded if a single one of these items does not meet service life recommendations and cannot be extended. Other items procured such as FLU-12/P Deck Crew Life Vest Inflator and the FLU-8B/P automatic life vest inflator are essential to crew survival after ejection or being thrown overboard.

T-6A (JPATS): Funding provides Under Seat Rocket Motor, Impulse Cartridge, Internal Canopy Mechanical Actuated Initiator, Seat Movement Mechanical Actuated Initiator, External Canopy Mechanical Actuated Initiator, Laser Initiator, Donor Assembly, Manifolds, Shielded Mild Detonating Cord Transfer Line and Holder Assembly.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Misc. Devices Under $500k: Safety CAD/PAD devices typically priced under $500k are procured yearly under this budget line, not limited to, but include: 1W18 Explosive Separator, JL96 Rocket Catapult, MJ98 Cartridge Actuated Initiator, SU58 Mild Detonating Cord Set, XW53 Explosive Sequence Control. Misc. Devices consist of roughly 608 unique components which range from $160 to $20K; the unit cost varies based on Economic Order Quantities, which vary from budget to budget for planned procurements.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a	Cartridge Actuated Devices/Propellant Act Devices	P-5a, P-21			- / 863.443	- / 64.056	- / 52.941	- / 64.694	- / 3.927	- / 68.621
P-40	**Total Gross/Weapon System Cost**				**- / 863.443**	**- / 64.056**	**- / 52.941**	**- / 64.694**	**- / 3.927**	**- / 68.621**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding is required to support fleet requirements that take into account the aircraft inventory, maintenance cycle and aircraft installed Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) service life, on-hand inventory, procurement lead-time, historical costs and projected contract delivery date. Funding is also required for production engineering support and lot acceptance testing. Product Improvement Programs (PIP) are used to address second source qualification, address safety of design and quality manufacturing efforts. Obsolescence identifies and qualifies replacement propellants for CAD/PAD due to obsolescence of ingredients and/or diminishing sources of supply.

The yearly requirements are modeled based upon the active aircraft in the OPNAV A-II Aircraft Inventory Budget, which feeds into the CAD/PAD Requirements Determination Module (RDM). The RDM accounts for the changing number of aircraft, platform availability, and unique component service lives of all procured commodities and respective quantities, which vary from year to year.

OCO:
FY 2021 Direct War OCO request funds the safety critical MT29 Parachute Deployment Rocket Motors (PDRMs), the WB15/WB55 cartridge actuated initiators, miscellaneous devices and WB16/MD65/MT95 Impulse Cartridges to replenish projected inventory shortfalls for a total of $3.927 million.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items Title:** Cartridge Actuated Devices/Propellant Act Devices

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware-Stores Release																				
1.1) (Q8090) JAU-22/ B Initiator CTG (MF64)	A		25.53	342,960	8.756	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)(†)	A		8.53	709,760	6.051	11.45	40,000	0.458	11.45	40,000	0.458	9.00	47,888	0.431	9.00	2,726	0.025	9.00	50,614	0.456
1.3) (Q8201) CCU-45 Impulse CTG (MD65)(†)	A		9.27	431,770	4.002	16.09	19,576	0.315	16.41	19,576	0.321	16.41	15,904	0.261	10.00	13,577	0.136	13.47	29,481	0.397
Subtotal: 1) Hardware-Stores Release			**-**	**-**	***18.809***	**-**	**-**	***0.773***	**-**	**-**	***0.779***	**-**	**-**	***0.692***	**-**	**-**	***0.161***	**-**	**-**	***0.853***
2) Hardware Safety (1)																				
2.1) (Q8060) Thermal Battery (CWDR) (2)(†)	A		3,415.18	2,464	8.415	-	-	-	-	-	-	5,030.00	308	1.549	-	-	-	5,030.00	308	1.549
2.2) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30) - NSWC, Indian Head (3)(†)	A		2,756.31	2,696	7.431	1,564.28	1,500	2.346	-	-	-	1,585.00	1,075	1.704	-	-	-	1,585.00	1,075	1.704
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)	A		3,662.65	6,056	22.181	4,194.83	580	2.433	-	-	-	4,541.00	910	4.132	4,541.00	482	2.189	4,541.00	1,392	6.321
2.4) (Q8071) MK 123 Underseat RCKT Motor (MT30)(†)	A		9,672.36	351	3.395	8,406.78	59	0.496	-	-	-	8,955.00	45	0.403	-	-	-	8,955.00	45	0.403
2.5) (Q8081) MK 124 Underseat RCKT Motor (MT31)(†)	A		9,492.87	491	4.661	8,515.38	130	1.107	-	-	-	9,131.00	76	0.694	-	-	-	9,131.00	76	0.694
2.6) (Q8140) FLU-8/9/12 Inflators (FW98/BY81JL09) (4)	A		-	-	18.307	-	-	3.263	-	-	1.842	-	-	1.656	-	-	-	-	-	1.656
2.7) (Q8160) JAU-74 INIT/CCU-146 CTG (WB15/16) (5)	A		-	-	17.284	-	-	2.340	-	-	2.831	-	-	2.832	-	-	1.173	-	-	4.005
2.8) (Q8180) F-18 DIFRS (SR95/WB19)	A		-	-	11.895	-	-	-	-	-	0.763	-	-	0.859	-	-	-	-	-	0.859
2.9) (Q8300) Navy Aircrew Common Ejection Seats (6)	A		-	-	16.043	-	-	1.138	-	-	1.863	-	-	1.348	-	-	-	-	-	1.348

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0180 / Cartridge Actuated Devices/Propellant Act Devices	Aggregated Items Title: Cartridge Actuated Devices/Propellant Act Devices

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.10) (Q8301) F-18E/ F/G & V-22 Fire Suppression Gas (7)	A		-	-	24.128	-	-	1.208	-	-	4.693	-	-	3.690	-	-	-	-	-	3.690
2.11) (Q8302) T-6A (JPATS) CAD/PADs (8)	A		-	-	54.602	-	-	8.721	-	-	8.200	-	-	10.328	-	-	-	-	-	10.328
Subtotal: 2) Hardware Safety			**-**	**-**	***188.342***	**-**	**-**	***23.052***	**-**	**-**	***20.192***	**-**	**-**	***29.195***	**-**	**-**	***3.362***	**-**	**-**	***32.557***
3) Hardware-Misc. Devices																				
3.1) (Q8600) Misc. Devices Under $500k (9)	A		-	-	123.157	-	-	26.450	-	-	13.156	-	-	16.480	-	-	0.404	-	-	16.884
Subtotal: 3) Hardware-Misc. Devices			**-**	**-**	***123.157***	**-**	**-**	***26.450***	**-**	**-**	***13.156***	**-**	**-**	***16.480***	**-**	**-**	***0.404***	**-**	**-**	***16.884***
4) (Q8800) Intergrated Logistics Support																				
4.1) Stores Release ILS	A		-	-	1.946	-	-	0.264	-	-	0.269	-	-	0.274	-	-	-	-	-	0.274
4.2) Safety ILS	A		-	-	6.737	-	-	0.857	-	-	0.874	-	-	0.891	-	-	-	-	-	0.891
4.3) Misc. Devices ILS	A		-	-	3.118	-	-	0.312	-	-	0.318	-	-	0.324	-	-	-	-	-	0.324
Subtotal: 4) (Q8800) Intergrated Logistics Support			**-**	**-**	***11.801***	**-**	**-**	***1.433***	**-**	**-**	***1.461***	**-**	**-**	***1.489***	**-**	**-**	**-**	**-**	**-**	***1.489***
5) (Q8820) Reliability Life																				
5.1) Stores Release Reliability Life	A		-	-	1.068	-	-	0.137	-	-	0.137	-	-	0.142	-	-	-	-	-	0.142
5.2) Safety Reliability Life	A		-	-	3.211	-	-	0.309	-	-	0.310	-	-	0.321	-	-	-	-	-	0.321
5.3) Misc. Devices Reliability Life	A		-	-	1.818	-	-	0.165	-	-	0.168	-	-	0.171	-	-	-	-	-	0.171
Subtotal: 5) (Q8820) Reliability Life			**-**	**-**	***6.097***	**-**	**-**	***0.611***	**-**	**-**	***0.615***	**-**	**-**	***0.634***	**-**	**-**	**-**	**-**	**-**	***0.634***
6) (Q8830) Production Engineering																				
6.1) Stores Release PES (10)	A		-	-	8.282	-	-	0.738	-	-	0.752	-	-	1.219	-	-	-	-	-	1.219
6.2) Safety PES	A		-	-	27.300	-	-	4.503	-	-	4.794	-	-	3.674	-	-	-	-	-	3.674
6.3) Misc. Devices PES	A		-	-	9.213	-	-	0.453	-	-	0.484	-	-	0.484	-	-	-	-	-	0.484
Subtotal: 6) (Q8830) Production Engineering			**-**	**-**	***44.795***	**-**	**-**	***5.694***	**-**	**-**	***6.030***	**-**	**-**	***5.377***	**-**	**-**	**-**	**-**	**-**	***5.377***
7) (Q8840) Quality Assurance																				
7.1) Stores Release QA	A		-	-	1.058	-	-	0.140	-	-	0.146	-	-	0.149	-	-	-	-	-	0.149
7.2) Safety QA	A		-	-	3.732	-	-	0.450	-	-	0.461	-	-	0.469	-	-	-	-	-	0.469
7.3) Misc. Devices QA	A		-	-	1.707	-	-	0.171	-	-	0.174	-	-	0.177	-	-	-	-	-	0.177

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items Title:** Cartridge Actuated Devices/Propellant Act Devices

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: 7) (Q8840) Quality Assurance			**-**	**-**	***6.497***	**-**	**-**	***0.761***	**-**	**-**	***0.781***	**-**	**-**	***0.795***	**-**	**-**	**-**	**-**	**-**	***0.795***
8) (Q8850) Product Improvement																				
8.1) Stores Release PIP	A		-	-	4.625	-	-	0.183	-	-	0.175	-	-	0.168	-	-	-	-	-	0.168
8.2) Safety PIP	A		-	-	16.695	-	-	3.141	-	-	3.550	-	-	3.621	-	-	-	-	-	3.621
8.3) Misc. Devices PIP	A		-	-	7.407	-	-	0.099	-	-	-	-	-	0.763	-	-	-	-	-	0.763
Subtotal: 8) (Q8850) Product Improvement			**-**	**-**	***28.727***	**-**	**-**	***3.423***	**-**	**-**	***3.725***	**-**	**-**	***4.552***	**-**	**-**	**-**	**-**	**-**	***4.552***
9) (Q8860) Acceptance Testing																				
9.1) Stores Release Acceptance Testing	A		-	-	4.028	-	-	0.476	-	-	0.485	-	-	0.494	-	-	-	-	-	0.494
9.2) Safety Acceptance Testing	A		-	-	11.252	-	-	0.800	-	-	0.815	-	-	0.831	-	-	-	-	-	0.831
9.3) Misc. Devices Acceptance Testing	A		-	-	7.306	-	-	0.583	-	-	0.595	-	-	0.606	-	-	-	-	-	0.606
Subtotal: 9) (Q8860) Acceptance Testing			**-**	**-**	***22.586***	**-**	**-**	***1.859***	**-**	**-**	***1.895***	**-**	**-**	***1.931***	**-**	**-**	**-**	**-**	**-**	***1.931***
10) (Q8870) Obsolescence (11)																				
10.1) Stores Release Obsolescence	A		-	-	-	-	-	-	-	-	0.775	-	-	0.639	-	-	-	-	-	0.639
10.2) Safety Obsolescence	A		-	-	-	-	-	-	-	-	2.584	-	-	2.129	-	-	-	-	-	2.129
10.3) Misc. Devices Obsolescence	A		-	-	-	-	-	-	-	-	0.948	-	-	0.781	-	-	-	-	-	0.781
Subtotal: 10) (Q8870) Obsolescence			**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***4.307***	**-**	**-**	***3.549***	**-**	**-**	**-**	**-**	**-**	***3.549***
11) Prior Years																				
11.1) Prior Years Cumulative Funding	A		-	-	412.632	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 11) Prior Years			**-**	**-**	***412.632***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**863.443**	**-**	**-**	**64.056**	**-**	**-**	**52.941**	**-**	**-**	**64.694**	**-**	**-**	**3.927**	**-**	**-**	**68.621**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Footnotes:

(1) CADPAD Budget funds numerous small dollar items that are critical for readiness and aircrew safety. Fluctuations in the requirements across the FYDP are based on the Fleet's actual need. Requirements are determined using the number of active aircraft in the OPNAV A-II Aircraft Inventory Budget and then processed in the Requirements Determination Model which calculates the requirements using the unique service life data, on-hand inventory, procurement lead times, historical cost and projected contract delivery dates. This applies to (Q2070) MK 122 Parachute Deployment RCKT Motor (MT29), (Q8071) MK 123 Underseat RCKT Motor (MT30), (Q8081) MK 124 Underseat RCKT Motor (MT31), (Q8160) JAU-74 INIT / CCU-146 CTG (WB15/16), (Q8180) F-18 DIFRS (SR95/WB19), (Q8300) Navy Aircrew Common Ejection Seats, 2.10)(Q8301) F-18/E/F/G and V-22 Fire Suppression Gas, (Q8302) T-6A (JPATS).

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items Title:** Cartridge Actuated Devices/Propellant Act Devices

(2) 2.1) (Q8060) CWDR Thermal Batteries procurement zeroed out by Congressional adjustment in FY 2019 and FY 2020. Inventory levels are projected to fall below minimum levels necessary for aircraft readiness requirements. FY 2021 procurements are critical to avoid impacting future aircraft readiness.

(3) 2.2) (Q2070) MK122 PDRM cost element was reduced by Congressional adjustment in FY 2019 and zeroed by Congressional adjustment in FY 2020. Inventory levels are projected to fall below minimum levels necessary for aircraft readiness requirements. FY 2021 procurements are critical to avoiding impacting future aircraft readiness.

(4) 2.6) (Q8140) FLU-8/9/12 Inflators - The FLU-8/9/12 cost element only funds 2 of the 3 items now: the FLU-8 (FW98 - used on the LPU-23 and LPU-36 Life Preservers) and the FLU-12 (JL09 - used on the MK-1 Life Preserver) Automatic Inflation Devices. Fluctuations in the requirements across the FYDP are based on the Fleet's actual need.

(5) 2.7) (Q8160) JAU-74 INIT / CCU-146 CTG (WB15/16) cost element funds 2 items.

(6) 2.9) (Q8300) Navy Aircrew Common Ejection Seats - cost element funds 7 items.

(7) 2.10)(Q8301) F-18/E/F/G and V-22 Fire Suppression Gas - this cost element funds 6 items.

(8) 2.11) (Q8302) T-6A (JPATS) CAD/PADs cost element funds 28 safety CAD/PAD items that are unique to the T-6 and are awarded over 5 contracts. These devices are within the aircraft's escape and safety systems.

(9) 3.1) (Q8600) Misc. Devices Under $500k cost element - Fluctuations to the MISC Devices Under $500K to support fleet requirements to replenish diminishing inventory as a result of active aircraft, platform availability and component service life. The number of active aircraft reported in the OPNAV A-II Aircraft Inventory Budget that CAD/PAD supports directly correlates to fluctuations in requirements to ensure adequate assets are available for Fleet support and operational readiness.

(10) 6.1 (Q8330) Stores Release PES exceeds normal inflation from 2020 to 2021 due to Hazards of electromagnetic Radiation Ordinance (HERO) validation and Seat upgrade/testing that will begin in 2021.

(11) 10) (Q8870) Obsolescence Cost element identifies and qualifies replacement propellants for CAD/PAD due to obsolescence of ingredients and/or diminishing sources of supply.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0180 / Cartridge Actuated Devices/Propellant Act Devices	Aggregated Items: Cartridge Actuated Devices/Propellant Act Devices

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Hardware-Stores Release												
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)		2018	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Feb 2018	Dec 2019	40,000	9.51	Y		Oct 2017
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)		2019	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Apr 2020	Apr 2021	40,000	11.45	Y		Oct 2018
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)		2020	TBD / TBD	C / FP	NAVSUP	Apr 2020	Apr 2021	40,000	11.45	Y		Oct 2019
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)		2021	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Oct 2020	Oct 2021	47,888	9.00	Y		Oct 2020
1.2) (Q8200) CCU-107 Impulse CTG (MT95/JM92)	✓	2021	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Oct 2020	Oct 2021	2,726	9.00	Y		Oct 2020
1.3) (Q8201) CCU-45 Impulse CTG (MD65)		2017	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	May 2017	Apr 2019	16,576	16.00	Y		Oct 2016
1.3) (Q8201) CCU-45 Impulse CTG (MD65)		2018	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Nov 2017	May 2019	19,576	15.85	Y		Oct 2017
1.3) (Q8201) CCU-45 Impulse CTG (MD65)		2019	AMTEC Corporation / Clear Lake, SD	C / FP	NAVSUP	Feb 2019	Feb 2020	19,576	16.09	Y		Oct 2018
1.3) (Q8201) CCU-45 Impulse CTG (MD65)		2020	TBD / TBD	C / FP	NAVSUP	Apr 2020	Apr 2021	19,576	16.41	Y		Oct 2019
1.3) (Q8201) CCU-45 Impulse CTG (MD65)		2021	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Apr 2021	Apr 2022	15,904	16.41	Y		Oct 2020
1.3) (Q8201) CCU-45 Impulse CTG (MD65)	✓	2021	Pyrotechnic Specialities / Byron, GA	C / FP	NAVSUP	Apr 2021	Apr 2022	13,577	10.00	Y		Oct 2020
2) Hardware Safety												
2.1) (Q8060) Thermal Battery (CWDR) (2)		2017	MARTIN-BAKER A/ CRT C / MIDDLESEX GB	C / FP	NAVSUP	Aug 2019	Aug 2020	1,354	2,470.68	Y		Aug 2016
2.1) (Q8060) Thermal Battery (CWDR) (2)		2018	MARTIN-BAKER A/ CRT C / MIDDLESEX GB	C / FP	NAVSUP	Aug 2019	Aug 2020	239	4,232.08	Y		Oct 2017
2.1) (Q8060) Thermal Battery (CWDR) (2)		2021	MARTIN-BAKER A/ CRT C / MIDDLESEX GB	C / FP	NAVSUP	Apr 2021	Apr 2022	308	5,030.00	Y		Dec 2020
2.2) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30) - NSWC, Indian Head (3)		2016	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / TBD	** NO PCO **	Oct 2015	Oct 2015	316	1,943.04	Y		
2.2) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30) - NSWC, Indian Head (3)		2017	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / TBD	** NO PCO **	Oct 2016	Oct 2016	162	3,861.05	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0180 / Cartridge Actuated Devices/Propellant Act Devices	Aggregated Items: Cartridge Actuated Devices/Propellant Act Devices

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.2) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30) - NSWC, Indian Head (3)		2019	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / TBD	NAVSUP	Mar 2019	Mar 2020	1,500	1,564.28	Y		Oct 2018
2.2) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30) - NSWC, Indian Head (3)		2021	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / TBD	NAVSUP	Oct 2020	Oct 2021	1,075	1,585.00	Y		Oct 2019
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)		2018 (12)	MARTIN-BAKER A/CRT C / MIDDLESEX, GB	C / FP	NAVSUP	Mar 2019	Mar 2020	921	4,280.13	Y		Oct 2017
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)		2019 (13)	MARTIN-BAKER A/CRT C / MIDDLESEX, GB	C / FP	NAVSUP	Mar 2019	Mar 2021	30	4,806.62	Y		Oct 2018
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)	✓	2019	MARTIN-BAKER A/CRT C / MIDDLESEX, GB	C / FP	NAVSUP	Feb 2019	Aug 2020	550	4,162.00	Y		Oct 2018
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)		2021	MARTIN-BAKER A/CRT C / MIDDLESEX, GB	C / FP	NAVSUP	Oct 2020	Oct 2021	910	4,541.00	Y		Oct 2020
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)(†)	✓	2021	MARTIN-BAKER A/CRT C / MIDDLESEX, GB	C / FP	NAVSUP	Oct 2020	Oct 2021	482	4,541.00	Y		Oct 2020
2.4) (Q8071) MK 123 Underseat RCKT Motor (MT30)		2018	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Feb 2019	May 2020	18	10,277.78	Y		Oct 2017
2.4) (Q8071) MK 123 Underseat RCKT Motor (MT30)		2019	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Feb 2019	May 2020	51	8,435.07	Y		Oct 2018
2.4) (Q8071) MK 123 Underseat RCKT Motor (MT30)	✓	2019	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Apr 2019	Jul 2020	8	8,285.74	Y		Oct 2018
2.4) (Q8071) MK 123 Underseat RCKT Motor (MT30)		2021	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Oct 2020	Jan 2022	45	8,955.00	Y		Oct 2020
2.5) (Q8081) MK 124 Underseat RCKT Motor (MT31)		2018	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Feb 2019	Apr 2020	28	10,285.71	Y		Oct 2017
2.5) (Q8081) MK 124 Underseat RCKT Motor (MT31)		2019	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Feb 2019	Apr 2020	112	8,533.37	Y		Oct 2018
2.5) (Q8081) MK 124 Underseat RCKT Motor (MT31)	✓	2019	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Apr 2019	Jul 2020	18	8,405.61	Y		Oct 2018
2.5) (Q8081) MK 124 Underseat RCKT Motor (MT31)		2021	MARTIN-BAKER A/ CFT / MIDDLESEX, GB	C / FP	NAVSUP	Oct 2020	Jan 2022	76	9,131.00	Y		Oct 2020

(†) indicates the presence of a P-21

Footnotes:

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

(12) FY18 PDRM requirements were awarded late. FY19 requirements were on time and awarded close to the same time as FY18. A more favorable delivery schedule was negotiated to catch up on late deliveries, causing deliveries to be closer together than usual.

(13) FY18 PDRM requirements were awarded late. FY19 requirements were on time and awarded close to the same time as FY18. A more favorable delivery schedule was negotiated to catch up on late deliveries

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

Items (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016												Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) Hardware Safety																															
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)																															
Prior Years Deliveries: 5135																															
	5	2018	NAVY	921	0	921																									921
	5	2019	NAVY	30	0	30																									30
✓	5	2019	NAVY	550	0	550																									550
	5	2021	NAVY	910	0	910																									910
✓	5	2021	NAVY	482	0	482																									482
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) Hardware Safety																															
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)																															
Prior Years Deliveries: 5135																															
	5	2018	NAVY	921	0	921																		A -	-	-	-	-	-	-	921
	5	2019	NAVY	30	0	30																		A -	-	-	-	-	-	-	30
✓	5	2019	NAVY	550	0	550																	A -	-	-	-	-	-	-	-	550
	5	2021	NAVY	910	0	910																									910
✓	5	2021	NAVY	482	0	482																									482
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) Hardware Safety																															
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)																															
Prior Years Deliveries: 5135																															
	5	2018	NAVY	921	0	921	-	-	-	-	-	231	230	230	230																0
	5	2019	NAVY	30	0	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30							0
✓	5	2019	NAVY	550	0	550	-	-	-	-	-	-	-	-	-	-	275	275													0
	5	2021	NAVY	910	0	910													A -	-	-	-	-	-	-	-	-	-	-	-	910
✓	5	2021	NAVY	482	0	482													A -	-	-	-	-	-	-	-	-	-	-	-	482
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) Hardware Safety																															
2.3) (Q2070) MK 122 Parachute Deploy RCKT (MT29/JN30)																															
Prior Years Deliveries: 5135																															
	5	2018	NAVY	921	921	0																									0
	5	2019	NAVY	30	30	0																									0
✓	5	2019	NAVY	550	550	0																									0
	5	2021	NAVY	910	0	910	455	455																							0
✓	5	2021	NAVY	482	0	482	482																								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0180 / Cartridge Actuated Devices/Propellant Act Devices	**Aggregated Items:** Cartridge Actuated Devices/Propellant Act Devices

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	MARTIN-BAKER A/CRT C - MIDDLESEX, GB	100	500	1,250	0	12	12	24	0	1	12	13

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604270N, 0206138M
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,394.165	102.962	87.010	51.523	15.978	67.501	49.420	73.534	74.990	76.483	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,394.165	102.962	87.010	51.523	15.978	67.501	49.420	73.534	74.990	76.483	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,394.165**	**102.962**	**87.010**	**51.523**	**15.978**	**67.501**	**49.420**	**73.534**	**74.990**	**76.483**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Air Expendable Countermeasures (AECM) line provides funding for procurement of countermeasure self-protection devices for all United States Navy (USN) and United States Marine Corps (USMC) tactical, rotary and other fixed-wing aircraft. AECM supports fleet aircrew training, readiness and operational combat requirements for all USN and USMC aircraft. The AECM Program is divided into the following threat related groupings: (1) Active Jammers (2) Infrared (IR) Decoys (3) associated impulse cartridges (4) Chaff Countermeasures and (5) F-35 Countermeasures.

ACTIVE JAMMERS: Current Active Jammer is ALE-55 Fiber Optic Towed Decoy (FOTD). The FOTD, when integrated with the rest of the F/A-18E/F Electronic Warfare (EW) suite (i.e., ALQ-214, ALR-67(V)3, ALE-47, ALE-50) and with the associated cockpit controls, displays and other avionics, significantly improves the survivability of the host aircraft in a Radio Frequency (RF) threat environment. The FOTD is part of the Integrated Defensive Electronic Countermeasure (IDECM) Radio Frequency Countermeasure (RFCM) Block 3 (IB-3) program. FOTD was developed utilizing Research, Development, Test & Evaluation, Navy, Program Element 0604270N, Project Unit 2175. Dual Band Decoy (DBD) is a future active jammer with a development contract that awarded in FY 2019. DBD will replace the ALE-55 FOTD and significantly improve F/A-18E/F survivability against emerging radar guided threats. DBD will utilize Research, Development, Test & Evaluation, Navy, Program Element 0604270N, Project Unit 2175. DBD procurements will begin in FY 2022.

IR DECOYS: The MJU-32/38/49 are currently used by all aircraft except the KC130J/T to provide self-protection from surface-to-air/air-to-air IR missiles. The MJU-61/64 are used on the KC-130J/T, UC-35D, UC-12W and F-35B/C aircraft to provide self-protection from surface-to-air/air-to-air IR missiles. The SM875 is a dedicated, low cost training device. The MJU-61 is also a low cost F-35B/C training device. The MJU-57 provides a kinematic IR countermeasure to defeat specific Man-Portable Air Defense Systems (MANPADS) used on the F/A-18, MV-22 and KC-130J. The MJU-66 is an advanced spectral countermeasure in support of KC-130J/T and UC-35D. The MJU-67 Multi-spectral flare provides an enhanced spectral signature required for USN/USMC aircraft self-protection against accelerated proliferation of advanced MANPADS.

IMPULSE CARTRIDGES: Used to propel the self-protection devices away from the aircraft. The CCU-136 is used by all airframes except the KC-130J/T, UC-12W and UC-35D. The CCU-145 is used on KC-130J/T, UC-35D, UC-12W and F-35B/C. The CCU-41 is used on F/A-18E/F for deploying ALE-50 Advanced Airborne Expendable Decoy (AAED).

CHAFF COUNTERMEASURES: The RR-129 is the operational round used on all USN/USMC aircraft platforms, except the USMC KC-130J/T, UC-12W and UC-35D in a RF threat environment. The RR-144 is a RF dedicated training round that does not interfere with Federal Aviation Administration tracking radars. The RR-170 is the operational round procured in support of the KC-130J/T, UC-12W and UC-35D.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604270N, 0206138M
Line Item MDAP/MAIS Code: N/A		

F-35 COUNTERMEASURES: PMA272 operating under a PEO(JSF)-PEO(T) Memorandum of Agreement procures F-35 countermeasures for all global participants under a combined contracting strategy to gain unit price efficiencies while meeting global operational requirements. F-35 program includes unique countermeasures that provide self-protection for the Joint Strike Fighter (JSF) aircraft, specifically ALE-70 and MJU-68. In addition to F-35B/C unique countermeasures, MJU-64/66s are used for F-35B/C self-protection. The RR-198/AL is a chaff countermeasure addressing survivability against emerging advanced RF threats on F-35B/C aircraft and may be applied to other platforms in the future. The RR-199/AL is a dedicated, low cost chaff training device.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604270N, 0206138M

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a	Air Expendable Countermeasures	P-5a, P-21			- / 1,394.165	- / 102.962	- / 87.010	- / 51.523	- / 15.978	- / 67.501
P-40	**Total Gross/Weapon System Cost**				**- / 1,394.165**	**- / 102.962**	**- / 87.010**	**- / 51.523**	**- / 15.978**	**- / 67.501**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
In accordance with ORD: #512-88-89 dated 28 May 99, Air Expendable Countermeasures program is tasked with maintaining an operationally effective mixture of countermeasures that can degrade and/or neutralize the effectiveness of current and/or projected threats and provide pre-emptive, area and point source devices that must be compatible with Night Vision Goggles (NVG). ORD: #512-88-89 mandates Product Improvement Program (PIP) and Production Engineering Support (PES) to ensure expendables are cost effective, environmentally friendly and Hazards of Electromagnetic Radiation to Ordnance (HERO) safe.

FY 2021 baseline funding is required to procure Active Jammers, IR Decoys, Impulse Cartridges, Chaff Countermeasures, F-35B/C Countermeasures and associated support for USN and USMC tactical, rotary and other fixed-wing aircraft to meet Fleet inventory levels requirements, based on Naval Munitions Requirements Process (NMRP) Combat Requirement. These proven countermeasure devices provide pre-emptive or terminal and reactive self-protection for all Navy and Marine Corps strike, assault, rotary wing, and other fixed wing aircraft from Radio Frequency (RF) or Infrared (IR) guided missile attack and other advanced threats. In FY 2021, $18.6M realigned from Active Jammers to F-35 Countermeasures and Integrated Logistics Support (IR Decoys) to increase inventories and support F-35C deployments.

OCO:
FY 2021 $15.978M Overseas Contingency Operations (OCO) funding request supports countermeasure replenishment of self-protection devices that have been expended in direct support of combat operations for Operation INHERENT RESOLVE.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures	Aggregated Items Title: Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) ACTIVE JAMMERS (2)																				
1.1) ALE-50 (AAED)	A		-	-	54.095	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) ALE-55 (FOTD) (3)(†)	A		81,112.50	2,551	206.918	66,843.00	329	21.991	85,677.00	155	13.280	-	-	-	-	-	-	-	-	-
1.4) TECHNICAL SUPPORT (ACTIVE JAMMER)	A		-	-	3.557	-	-	0.882	-	-	0.608	-	-	-	-	-	-	-	-	-
Subtotal: 1) ACTIVE JAMMERS			**-**	**-**	***264.570***	**-**	**-**	***22.873***	**-**	**-**	***13.888***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2) IR DECOYS																				
2.1) MJU-32 (4)(†)	A		111.44	468,366	52.197	74.96	9,475	0.710	74.96	66,640	4.995	-	-	0.000	76.46	44,086	3.371	76.46	44,086	3.371
2.2) MJU-38(†)	A		136.44	316,485	43.180	-	-	-	-	-	-	-	-	0.000	54.18	4,447	0.241	54.18	4,447	0.241
2.3) MJU-49(†)	A		563.39	370,391	208.673	-	-	-	-	-	-	-	-	0.000	124.11	7,766	0.964	124.11	7,766	0.964
2.4) MJU-55	A		-	-	20.105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5) MJU-57 (5)(†)	A		320.88	238,913	76.663	-	-	-	-	-	-	-	-	0.000	131.65	2,840	0.374	131.65	2,840	0.374
2.6) MJU-61(†)	A		77.09	136,287	10.507	70.02	57,311	4.013	71.35	79,168	5.649	-	-	0.000	72.78	15,444	1.124	72.78	15,444	1.124
2.7) MJU-64 (6)(†)	A		91.40	163,165	14.913	83.53	34,560	2.887	-	-	-	-	-	-	-	-	-	-	-	-
2.8) MJU-66 (7)(†)	A		125.08	98,122	12.273	107.05	33,917	3.631	110.18	27,118	2.988	113.14	30,935	3.500	113.14	3,155	0.357	113.14	34,090	3.857
2.9) MJU-67 (8)(†)	A		415.41	84,880	35.260	331.54	48,642	16.127	338.17	8,764	2.964	344.93	10,251	3.536	-	-	-	344.93	10,251	3.536
2.11) SM875 (9)(†)	A		31.98	2,301,244	73.600	23.71	229,653	5.445	25.46	103,429	2.633	-	-	0.000	25.97	137,647	3.575	25.97	137,647	3.575
Subtotal: 2) IR DECOYS			**-**	**-**	***547.371***	**-**	**-**	***32.813***	**-**	**-**	***19.229***	**-**	**-**	***7.036***	**-**	**-**	***10.006***	**-**	**-**	***17.042***
3) IMPULSE CARTRIDGES																				
3.1) CCU-41(†)	A		-	-	-	-	-	-	-	-	-	9.90	5,050	0.050	-	-	-	9.90	5,050	0.050
3.2) CCU-136 (10)(†)	A		8.04	6,745,412	54.225	3.81	262,467	1.000	3.88	315,920	1.226	-	-	0.000	3.95	336,777	1.330	3.95	336,777	1.330
3.3) CCU-145	A		6.58	1,367,105	8.992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) IMPULSE CARTRIDGES			**-**	**-**	***63.217***	**-**	**-**	***1.000***	**-**	**-**	***1.226***	**-**	**-**	***0.050***	**-**	**-**	***1.330***	**-**	**-**	***1.380***
4) CHAFF COUNTERMEASURES																				
4.1) RR-129(†)	A		12.73	518,009	6.592	-	-	-	-	-	-	-	-	0.000	14.32	102,886	1.473	14.32	102,886	1.473
4.2) RR-144(†)	A		28.89	767,572	22.177	16.28	504,915	8.220	16.60	130,602	2.168	-	-	0.000	16.58	33,828	0.561	16.58	33,828	0.561
4.3) RR-170	A		7.91	86,907	0.687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4) RR-188	A		-	-	0.121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) CHAFF COUNTERMEASURES			**-**	**-**	***29.577***	**-**	**-**	***8.220***	**-**	**-**	***2.168***	**-**	**-**	***0.000***	**-**	**-**	***2.034***	**-**	**-**	***2.034***
5) F-35 COUNTERMEASURES																				
5.1) ALE-70 (11)(†)	A		55,766.88	918	51.194	52,142.28	260	13.557	52,919.00	288	15.241	53,802.00	516	27.762	-	-	-	53,802.00	516	27.762

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures	Aggregated Items Title: Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.2) MJU-68 (12)(†)	A		2,270.12	12,835	29.137	2,000.00	5,429	10.858	2,040.00	10,080	20.563	2,080.80	5,462	11.365	-	-	-	2,080.80	5,462	11.365
5.3) MJU-69	A		2,242.67	2,081	4.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.4) CCU-168	A		327.87	2,257	0.740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5) RR-198/AL (13)(†)	A		-	-	-	-	-	-	-	-	-	222.32	1,925	0.428	-	-	-	222.32	1,925	0.428
5.6) RR-199/AL (14)(†)	A		-	-	-	-	-	-	-	-	-	51.00	1,000	0.051	-	-	-	51.00	1,000	0.051
Subtotal: 5) F-35 COUNTERMEASURES			**-**	**-**	***85.738***	**-**	**-**	***24.415***	**-**	**-**	***35.804***	**-**	**-**	***39.606***	**-**	**-**	**-**	**-**	**-**	***39.606***
6) INTEGRATED LOGISTICS SUPPORT																				
6.1) ACTIVE JAMMERS (15)			-	-	3.473	-	-	0.270	-	-	0.234	-	-	-	-	-	-	-	-	-
6.2) IR DECOYS			-	-	24.704	-	-	1.780	-	-	1.379	-	-	1.328	-	-	-	-	-	1.328
6.3) IMPULSE CARTRIDGES			-	-	1.660	-	-	0.052	-	-	0.053	-	-	-	-	-	-	-	-	-
6.4) CHAFF COUNTERMEASURES			-	-	1.255	-	-	0.052	-	-	0.053	-	-	-	-	-	-	-	-	-
6.5) F-35 COUNTERMEASURES			-	-	2.208	-	-	0.607	-	-	0.620	-	-	0.632	-	-	-	-	-	0.632
Subtotal: 6) INTEGRATED LOGISTICS SUPPORT			**-**	**-**	***33.300***	**-**	**-**	***2.761***	**-**	**-**	***2.339***	**-**	**-**	***1.960***	**-**	**-**	**-**	**-**	**-**	***1.960***
7) PRODUCTION ENGINEERING SUPPORT																				
7.1) ACTIVE JAMMERS (16)			-	-	31.802	-	-	0.569	-	-	0.576	-	-	-	-	-	-	-	-	-
7.2) IR DECOYS			-	-	73.171	-	-	2.171	-	-	2.111	-	-	0.102	-	-	-	-	-	0.102
7.3) IMPULSE CARTRIDGES			-	-	5.564	-	-	0.173	-	-	0.176	-	-	-	-	-	-	-	-	-
7.4) CHAFF COUNTERMEASURES			-	-	2.956	-	-	0.052	-	-	0.053	-	-	-	-	-	-	-	-	-
7.5) F-35 COUNTERMEASURES (17)			-	-	9.799	-	-	1.177	-	-	0.894	-	-	0.911	-	-	-	-	-	0.911
Subtotal: 7) PRODUCTION ENGINEERING SUPPORT			**-**	**-**	***123.292***	**-**	**-**	***4.142***	**-**	**-**	***3.810***	**-**	**-**	***1.013***	**-**	**-**	**-**	**-**	**-**	***1.013***
8) PRODUCT IMPROVEMENT PROGRAM																				
8.1) IR DECOYS			-	-	95.770	-	-	1.750	-	-	1.068	-	-	-	-	-	-	-	-	-
8.2) IMPULSE CARTRIDGES			-	-	12.593	-	-	0.206	-	-	0.210	-	-	-	-	-	-	-	-	-
8.3) CHAFF COUNTERMEASURES			-	-	0.763	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.4) F-35 COUNTERMEASURES			-	-	0.409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	**Aggregated Items Title:** Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: 8) PRODUCT IMPROVEMENT PROGRAM			**-**	**-**	***109.535***	**-**	**-**	***1.956***	**-**	**-**	***1.278***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
9) ACCEPTANCE TEST & EVALUATION (18)																				
9.1) IR DECOYS			-	-	113.803	-	-	4.044	-	-	5.713	-	-	0.900	-	-	2.608	-	-	3.508
9.2) IMPULSE CARTRIDGES			-	-	16.221	-	-	0.399	-	-	0.171	-	-	-	-	-	-	-	-	-
9.3) CHAFF COUNTERMEASURES			-	-	5.245	-	-	0.052	-	-	0.042	-	-	-	-	-	-	-	-	-
9.4) F-35 COUNTERMEASURES (19)			-	-	2.296	-	-	0.287	-	-	1.342	-	-	0.958	-	-	-	-	-	0.958
Subtotal: 9) ACCEPTANCE TEST & EVALUATION			**-**	**-**	***137.565***	**-**	**-**	***4.782***	**-**	**-**	***7.268***	**-**	**-**	***1.858***	**-**	**-**	***2.608***	**-**	**-**	***4.466***
Total			**-**	**-**	**1,394.165**	**-**	**-**	**102.962**	**-**	**-**	**87.010**	**-**	**-**	**51.523**	**-**	**-**	**15.978**	**-**	**-**	**67.501**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Footnotes:

(1) (a) Unit cost for hardware in FY 2021 reflect either actual contact pricing or inflation of previous year's unit cost. (b) Deliveries funded by different fiscal year appropriations occasionally overlap (P21 Delivery Schedule) to ensure inventory goals are met without exceeding maximum production rates.

(2) FY 2021 funds transferred from Active Jammers to F-35 Countermeasures to increase inventories to support F-35C deployments.

(3) ALE-55 (FOTD) FY 2020 unit cost increases from lower quantity buy due to funds moved into F-35 Countermeasures from Active Jammers to support F-35C deployments.

(4) MJU-32 FY 2019 procurement added to address inventory shortfall based on Navy priorities.

(5) MJU-57 FY 2019 procurement removed to address inventory shortfall on other countermeasure devices based on Navy priorities.

(6) MJU-64 FY 2019 procurement added to address inventory shortfall based on Navy priorities.

(7) MJU-66 FY 2021 unit cost is based on negotiated contract pricing for planned quantity.

(8) MJU-67 FY 2021 unit cost is comprised of negotiated contract pricing for raw materials and estimated labor rate for organic manufacturer for planned quantity.

(9) SM875 FY 2020 OCO unit cost increase above inflation based on actual contract step ladder pricing for lower quantity procurement.

(10) CCU-136 FY 2019 quantities adjusted based on Navy priorities.

(11) ALE-70 Unit cost decrease based on negotiations for combined procurements for DoD, International Partners and Foreign Military Sales and savings from should cost initiatives, resulting in increased quantities to support inventory requirements. FY 2021 unit cost reflects maximum quantity discount with combined procurements. FY 2021 funds transferred into F-35 Countermeasures from Active Jammers to increase inventories to support F-35C deployments.

(12) MJU-68 FY 2019 and FY 2020 increase to address existing, known procurement shortfalls to support F-35B deployments. FY 2021 funds transferred into F-35 Countermeasures from Active Jammers to increase inventories to support F-35C deployments. Unit cost updated based on best-known pricing established on undefinitized contract awarded May 2019 and reflects decrease due to contracting directly with manufacturer, thereby eliminating production overhead.

(13) RR-198 FY 2021 Low Rate Initial Production (LRIP) begins on new F-35 advanced chaff.

(14) RR-199 FY 2021 Low Rate Initial Production (LRIP) begins on new F-35 advanced training chaff.

(15) 6.1 (ILS Active Jammers) FY 2021 funds transferred from Active Jammers to support F-35C deployments.

(16) 7.1 (PES Active Jammers) FY 2021 funds transferred from Active Jammers to support F-35C deployments.

(17) 7.5 (PES F-35 Countermeasures) FY 2019 increase due to ALE-70 Non-Recurring Engineering (NRE) for diminishing manufacturing sources.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	**Aggregated Items Title:** Air Expendable Countermeasures (1)

(18) Acceptance Test and Evaluation funding varies annually based on countermeasure production deliveries and type of Lot Acceptance Testing required.

(19) 9.4 (ATE F-35 Countermeasures) FY 2020 increase above inflation for lot acceptance test requirements associated with increased quantity for MJU-68 procurement to support F-35B deployments.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures	Aggregated Items: Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) ACTIVE JAMMERS												
1.2) ALE-55 (FOTD) (3)		2018	BAE Systems / Nashua, NH	SS / FP	NAVAIR	Nov 2017	Dec 2018	303	72,029.00	Y		Jun 2016
1.2) ALE-55 (FOTD) (3)		2019	BAE Systems / Nashua, NH	SS / FP	NAVAIR	Dec 2018	Dec 2019	329	66,843.00	Y		Jun 2016
1.2) ALE-55 (FOTD) (3)		2020 (20)	BAE Systems / Nashua, NH	SS / FP	NAVAIR	Jan 2020	Dec 2020	155	85,677.00	Y		Feb 2019
2) IR DECOYS												
2.1) MJU-32 (4)		2019	TBD (21) / TBD	C / IDIQ	NAVSUP WSS	Mar 2020	Mar 2021	9,475	74.96	Y		Nov 2019
2.1) MJU-32 (4)		2020	TBD (21) / TBD	C / IDIQ	NAVSUP WSS	Mar 2020	Mar 2021	20,651	74.96	Y		Nov 2019
2.1) MJU-32 (4)	✓	2020	TBD (21) / TBD	C / IDIQ	NAVSUP WSS	Mar 2020	Mar 2021	45,989	74.96	Y		Nov 2019
2.1) MJU-32 (4)	✓	2021	TBD (21) / TBD	C / IDIQ	NAVSUP WSS	Mar 2021	Mar 2022	44,086	76.46	Y		Nov 2019
2.2) MJU-38	✓	2021	TBD (22) / TBD	C / IDIQ	NAVSUP WSS	Mar 2021	Mar 2022	4,447	54.18	Y		Nov 2019
2.3) MJU-49	✓	2021	TBD (23) / TBD	C / FFP	NAVSUP WSS	Mar 2021	Mar 2022	7,766	124.11	Y		Aug 2020
2.5) MJU-57 (5)		2017 (24)	Crane Army Ammunition Activity / Crane, IN	MIPR	CRANE, IN	Mar 2017	Sep 2017	8,374	126.54	Y		Feb 2017
2.5) MJU-57 (5)	✓	2021	Crane Army Ammunition Activity / Crane, IN	MIPR	CRANE, IN	Mar 2021	Sep 2021	2,840	131.65	Y		Feb 2021
2.6) MJU-61	✓	2018	Armtec Countermeasures Co./Kilgore Flares Co. (25) / Camden AR/Toone TN	C / IDIQ	NAVSUP WSS	Sep 2018	Jul 2019	25,959	86.44	Y		Feb 2018
2.6) MJU-61		2019	Armtec Countermeasures Co./Kilgore Flares Co. (25) / Camden AR/Toone TN	C / IDIQ	NAVSUP WSS	Mar 2019	Jan 2020	29,248	70.02	Y		Feb 2018
2.6) MJU-61	✓	2019	Armtec Countermeasures Co./Kilgore Flares Co. (25) / Camden AR/Toone TN	C / IDIQ	NAVSUP WSS	Mar 2019	Jan 2020	28,063	70.02	Y		Feb 2018
2.6) MJU-61	✓	2020	Armtec Countermeasures Co./Kilgore Flares Co. (25) / Camden AR/Toone TN	C / IDIQ	NAVSUP WSS	Mar 2020	Jan 2021	79,168	71.35	Y		Feb 2018
2.6) MJU-61	✓	2021	TBD (26) / TBD	C / IDIQ	NAVSUP WSS	Mar 2021	Jan 2022	15,444	72.78	Y		Aug 2020
2.7) MJU-64 (6)		2019	Alloy Surfaces Co. / Chester, PA	C / FFP	NAVSUP WSS	Aug 2019	May 2020	34,560	83.53	Y		Jan 2019
2.8) MJU-66 (7)		2019	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Jan 2020	Jan 2021	6,865	107.05	Y		Oct 2017
2.8) MJU-66 (7)	✓	2019	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Apr 2019	Apr 2020	27,052	107.05	Y		Oct 2017
2.8) MJU-66 (7)		2020	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Jan 2020	Jan 2021	22,163	110.18	Y		Oct 2017
2.8) MJU-66 (7)	✓	2020	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Jan 2020	Jan 2021	4,955	110.18	Y		Oct 2017
2.8) MJU-66 (7)		2021	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Jan 2021	Jan 2022	30,935	113.14	Y		Oct 2017
2.8) MJU-66 (7)	✓	2021	Alloy Surfaces Co. / Chester, PA	C / IDIQ	NAVSUP WSS	Jan 2021	Jan 2022	3,155	113.14	Y		Oct 2017

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures	Aggregated Items: Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.9) MJU-67 (8)	✓	2017	Crane Army Ammunition Activity / Crane, IN	MIPR	CRANE, IN	Dec 2017	Apr 2019	16,690	423.00	Y		Jan 2016
2.9) MJU-67 (8)		2018 (27)	Armtec Countermeasures Co. / Camden, AR	SS / BOA	CRANE, IN	Jan 2018	Apr 2018	10,746	426.40	Y		May 2017
2.9) MJU-67 (8)	✓	2018 (28)	Armtec Countermeasures Co. / Camden, AR	SS / BOA	CRANE, IN	Jun 2018	Sep 2018	18,924	426.40	Y		May 2017
2.9) MJU-67 (8)	✓	2019	Elbit Systems Ltd/ CAAA / Israel/Crane, IN	SS / IDIQ	SOCOM, Fort Eustis, Va	Jan 2019	May 2020	48,642	331.54	Y		May 2017
2.9) MJU-67 (8)		2020	Elbit Systems Ltd/ CAAA / Israel/Crane, IN	SS / IDIQ	SOCOM, Fort Eustis, Va	Apr 2020	Aug 2021	8,764	338.17	Y		May 2017
2.9) MJU-67 (8)		2021	Elbit Systems Ltd/ CAAA / Israel/Crane, IN	SS / IDIQ	NAVSUP WSS	Mar 2021	Jul 2022	10,251	344.93	Y		May 2020
2.11) SM875 (9)		2016 (29)	Armtec Countermeasures Co. / Camden, AR	C / IDIQ	NAVSUP WSS	Mar 2016	Mar 2018	165,915	23.00	Y		Jul 2013
2.11) SM875 (9)	✓	2019	Kilgore Flares Co. / Toone, TN	C / IDIQ	NAVSUP WSS	Feb 2019	Nov 2020	229,653	23.71	Y		Feb 2017
2.11) SM875 (9)	✓	2020	Kilgore Flares Co. / Toone, TN	C / IDIQ	NAVSUP WSS	Jan 2020	Oct 2021	103,429	25.46	Y		Feb 2017
2.11) SM875 (9)	✓	2021	Kilgore Flares Co. / Toone, TN	C / IDIQ	NAVSUP WSS	Jan 2021	Oct 2022	137,647	25.97	Y		Feb 2017
3) IMPULSE CARTRIDGES												
3.1) CCU-41		2021	TBD (30) / TBD	C / IDIQ	NAVSUP WSS	Feb 2021	Feb 2022	5,050	9.90	Y		Nov 2019
3.2) CCU-136 (10)	✓	2019	Capco Inc. / Grand Junction, CO	C / IDIQ	NAVSUP WSS	Feb 2019	Oct 2019	262,467	3.81	Y		Jun 2017
3.2) CCU-136 (10)	✓	2020	Capco Inc. / Grand Junction, CO	C / IDIQ	NAVSUP WSS	Jan 2020	Sep 2020	315,920	3.88	Y		Jun 2017
3.2) CCU-136 (10)	✓	2021	Capco Inc. / Grand Junction, CO	C / IDIQ	NAVSUP WSS	Jan 2021	Sep 2021	336,777	3.95	Y		Jun 2017
4) CHAFF COUNTERMEASURES												
4.1) RR-129	✓	2021	TBD (31) / TBD	C / IDIQ	NAVSUP WSS	Feb 2021	Jun 2021	102,886	14.32	Y		Aug 2020
4.2) RR-144		2019	Armtec Countermeasures Co. / Lillington, NC	C / IDIQ	NAVSUP WSS	Dec 2018	Apr 2019	85,688	16.28	Y		Feb 2017
4.2) RR-144	✓	2019	Armtec Countermeasures Co. / Lillington, NC	C / IDIQ	NAVSUP WSS	Dec 2018	Apr 2019	419,227	16.28	Y		Feb 2017
4.2) RR-144	✓	2020	Armtec Countermeasures Co. / Lillington, NC	C / IDIQ	NAVSUP WSS	Feb 2020	Jun 2020	130,602	16.60	Y		Feb 2017
4.2) RR-144	✓	2021	TBD (32) / TBD	C / IDIQ	NAVSUP WSS	Feb 2021	Jun 2021	33,828	16.58	Y		Aug 2020
5) F-35 COUNTERMEASURES												
5.1) ALE-70 (11)(†)		2018	BAE Systems / Nashua, NH	SS / BOA	NAVSUP WSS	Aug 2018	Sep 2020	252	54,239.24	Y		Dec 2017
5.1) ALE-70 (11)(†)		2019	BAE Systems / Nashua, NH	SS / FFP	NAVAIR	Aug 2019	Aug 2021	260	52,142.28	Y		Mar 2018

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures	Aggregated Items: Air Expendable Countermeasures (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1) ALE-70 (11)(†)		2020	BAE Systems / Nashua, NH	SS / FFP	NAVAIR	Mar 2020	Apr 2022	288	52,919.00	Y		Mar 2018
5.1) ALE-70 (11)(†)		2021	BAE Systems / Nashua, NH	SS / FFP	NAVAIR	Mar 2021	Apr 2023	516	53,802.00	Y		Mar 2018
5.2) MJU-68 (12)(†)		2018 (33)	Chemring Australia / Lara, AU	SS / FFP	NAVAIR	May 2019	Apr 2020	3,319	2,000.00	Y		Jan 2019
5.2) MJU-68 (12)(†)		2019 (34)	Chemring Australia / Lara, AU	SS / FFP	NAVAIR	May 2019	Apr 2020	5,429	2,000.00	Y		Jan 2019
5.2) MJU-68 (12)(†)		2020	Chemring Australia / Lara, AU	SS / FFP	NAVAIR	Jun 2020	May 2021	10,080	2,040.00	Y		Dec 2019
5.2) MJU-68 (12)(†)		2021	TBD (35) / TBD	C / FFP	NAVAIR	May 2021	Apr 2022	5,462	2,080.80	Y		Aug 2020
5.5) RR-198/AL (13)		2021	TBD (36) / TBD	SS / FFP	NAVAIR	Feb 2021	Feb 2022	1,925	222.32	N	Mar 2020	Aug 2020
5.6) RR-199/AL (14)		2021	TBD (37) / TBD	SS / FFP	NAVAIR	Feb 2021	Feb 2022	1,000	51.00	N	Mar 2020	Aug 2020

(†) indicates the presence of a P-21

Footnotes:

(20) ALE-55 FY 2020 contract award moved from Nov 2019 to Jan 2020 due to an extended evaluation period. No corresponding change to the first delivery date anticipated.

(21) MJU-32 FY 2020 competitive award will determine vendor and production rates.

(22) MJU-38 FY 2021 competitive award will determine vendor and production rates.

(23) MJU-49 FY 2021 competitive award will determine vendor and production rates.

(24) MJU-57 FY 2017 production interrupted due to higher priority workload. The first article test build to resume production is scheduled for June 2020.

(25) MJU-61 contract is a multiple award to Armtec Countermeasures Co. and Kilgore Flares Co.

(26) MJU-61 FY 2021 competitive award will determine vendor and production rates.

(27) MJU-67 FY 2018 deliveries delayed for Lot acceptance testing (LAT) failure due to improperly installed pressed igniter pellets. Manufacturer successfully completed the engineering evaluation to determine corrective action. Further break in production due to explosive incident on a different device, resulting in plant shutdown during investigation. Production resumed May 2019.

(28) MJU-67 FY 2018 OCO deliveries delayed for Lot acceptance testing (LAT) failure due to improperly installed pressed igniter pellets. Manufacturer successfully completed the engineering evaluation to determine corrective action. Further break in production due to explosive incident on a different device, resulting in plant shutdown during investigation. Production resumed May 2019.

(29) SM-875 FY 2016 deliveries delayed for Lot acceptance testing (LAT) failure due to improperly installed igniter pellets. Manufacturer successfully completed the engineering evaluation to determine corrective action. Further break in production due to explosive incident on a different device in Dec 2018, resulting in plant shutdown during investigation. Production resumed October 2019.

(30) CCU-41 FY 2021 competitive award will determine vendor and production rates.

(31) RR-129 FY 2021 competitive award will determine vendor and production rates.

(32) RR-144 FY 2021 competitive award will determine vendor and production rates.

(33) MJU-68 FY 2018 Undefinitized Contract Action awarded to Chemring, AU to augment existing manufacturing capacity to increase inventory to support F-35B/C deployments.

(34) MJU-68 FY 2019 Undefinitized Contract Action awarded to Chemring, AU to augment existing manufacturing capacity to increase inventory to support F-35B/C deployments.

(35) MJU-68 FY 2021 competitive award will determine vendor and production rates.

(36) RR-198 FY 2021 contract award will determine production rates.

(37) RR-199 FY 2021 contract award will determine production rates.

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	**Aggregated Items:** Air Expendable Countermeasures (1)

Items (Units in Thousands)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016												Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5) F-35 COUNTERMEASURES																															
5.1) ALE-70 (11)																															
Prior Years Deliveries: 666																															
	6	2018	NAVY	.252	.000	.252																									.252
	6	2018	AF (‡)	.616	.000	.616																									.616
	6	**2018**	**Total**	**.868**	**.000**	**.868**																									**.868**
	6	2019	NAVY	.260	.000	.260																									.260
	6	2019	AF (‡)	.712	.000	.712																									.712
	6	**2019**	**Total**	**.972**	**.000**	**.972**																									**.972**
	6	2020	NAVY	.288	.000	.288																									.288
	6	2020	AF (‡)	.756	.000	.756																									.756
	6	**2020**	**Total**	**1.044**	**.000**	**1.044**																									**1.044**
	6	2021	NAVY	.516	.000	.516																									.516
	6	2021	AF (‡)	.432	.000	.432																									.432
	6	**2021**	**Total**	**.948**	**.000**	**.948**																									**.948**
5.2) MJU-68 (12)																															
Prior Years Deliveries: 9516																															
	7	2018	NAVY	3.319	.000	3.319																									3.319
	7	2018	AF (‡)	4.272	.000	4.272																									4.272
	7	**2018**	**Total**	**7.591**	**.000**	**7.591**																									**7.591**
	7	2019	NAVY	5.429	.000	5.429																									5.429
	7	2019	AF (‡)	6.984	.000	6.984																									6.984
	7	**2019**	**Total**	**12.413**	**.000**	**12.413**																									**12.413**
	7	2020	NAVY	10.080	.000	10.080																									10.080
	7	2020	AF (‡)	9.191	.000	9.191																									9.191
	7	**2020**	**Total**	**19.271**	**.000**	**19.271**																									**19.271**
	8	2021	NAVY	5.462	.000	5.462																									5.462
	8	2021	AF (‡)	8.440	.000	8.440																									8.440
	8	**2021**	**Total**	**13.902**	**.000**	**13.902**																									**13.902**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	**Aggregated Items:** Air Expendable Countermeasures (1)

Items (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5) F-35 COUNTERMEASURES																															
5.1) ALE-70 (11)																															
Prior Years Deliveries: 666																															
	6	2018	NAVY	.252	.000	.252											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.252
	6	2018	AF (‡)	.616	.000	.616											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.616
	6	**2018**	**Total**	**.868**	**.000**	**.868**											**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.868**
	6	2019	NAVY	.260	.000	.260																							A -	-	.260
	6	2019	AF (‡)	.712	.000	.712																							A -	-	.712
	6	**2019**	**Total**	**.972**	**.000**	**.972**																							**-**	**-**	**.972**
	6	2020	NAVY	.288	.000	.288																									.288
	6	2020	AF (‡)	.756	.000	.756																									.756
	6	**2020**	**Total**	**1.044**	**.000**	**1.044**																									**1.044**
	6	2021	NAVY	.516	.000	.516																									.516
	6	2021	AF (‡)	.432	.000	.432																									.432
	6	**2021**	**Total**	**.948**	**.000**	**.948**																									**.948**
5.2) MJU-68 (12)																															
Prior Years Deliveries: 9516																															
	7	2018	NAVY	3.319	.000	3.319																			A -	-	-	-	-	-	3.319
	7	2018	AF (‡)	4.272	.000	4.272																			A -	-	-	-	-	-	4.272
	7	**2018**	**Total**	**7.591**	**.000**	**7.591**																			**-**	**-**	**-**	**-**	**-**	**-**	**7.591**
	7	2019	NAVY	5.429	.000	5.429																			A -	-	-	-	-	-	5.429
	7	2019	AF (‡)	6.984	.000	6.984																			A -	-	-	-	-	-	6.984
	7	**2019**	**Total**	**12.413**	**.000**	**12.413**																			**-**	**-**	**-**	**-**	**-**	**-**	**12.413**
	7	2020	NAVY	10.080	.000	10.080																									10.080
	7	2020	AF (‡)	9.191	.000	9.191																									9.191
	7	**2020**	**Total**	**19.271**	**.000**	**19.271**																									**19.271**
	8	2021	NAVY	5.462	.000	5.462																									5.462
	8	2021	AF (‡)	8.440	.000	8.440																									8.440
	8	**2021**	**Total**	**13.902**	**.000**	**13.902**																									**13.902**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures

Aggregated Items: Air Expendable Countermeasures (1)

Items (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5) F-35 COUNTERMEASURES																															
5.1) ALE-70 (11)																															
Prior Years Deliveries: 666																															
	6	2018	NAVY	.252	.000	.252	-	-	-	-	-	-	-	-	-	-	-	.040	.040	.040	.024	.025	.025	.025	.025	.008	-	-			.000
	6	2018	AF (‡)	.616	.000	.616	-	-	-	-	-	-	-	-	-	-	-	.056	.056	.056	.056	.056	.056	.056	.056	.056	.056	.056			.000
	6	**2018**	**Total**	**.868**	**.000**	**.868**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.096**	**.096**	**.096**	**.080**	**.081**	**.081**	**.081**	**.081**	**.064**	**.056**	**.056**	**-**	**-**	**.000**
	6	2019	NAVY	.260	.000	.260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.033	.033	.194
	6	2019	AF (‡)	.712	.000	.712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.062	.062	.588
	6	**2019**	**Total**	**.972**	**.000**	**.972**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.095**	**.095**	**.782**
	6	2020	NAVY	.288	.000	.288						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.288
	6	2020	AF (‡)	.756	.000	.756						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.756
	6	**2020**	**Total**	**1.044**	**.000**	**1.044**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.044**
	6	2021	NAVY	.516	.000	.516																		A -	-	-	-	-	-	-	.516
	6	2021	AF (‡)	.432	.000	.432																		A -	-	-	-	-	-	-	.432
	6	**2021**	**Total**	**.948**	**.000**	**.948**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.948**
5.2) MJU-68 (12)																															
Prior Years Deliveries: 9516																															
	7	2018	NAVY	3.319	.000	3.319	-	-	-	-	-	-	.277	.277	.277	.277	.277	.277	.277	.276	.276	.276	.276	.276							.000
	7	2018	AF (‡)	4.272	.000	4.272	-	-	-	-	-	-	.356	.356	.356	.356	.356	.356	.356	.356	.356	.356	.356	.356							.000
	7	**2018**	**Total**	**7.591**	**.000**	**7.591**	**-**	**-**	**-**	**-**	**-**	**-**	**.633**	**.633**	**.633**	**.633**	**.633**	**.633**	**.633**	**.632**	**.632**	**.632**	**.632**	**.632**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	7	2019	NAVY	5.429	.000	5.429	-	-	-	-	-	-	.453	.453	.453	.453	.453	.452	.452	.452	.452	.452	.452	.452							.000
	7	2019	AF (‡)	6.984	.000	6.984	-	-	-	-	-	-	.582	.582	.582	.582	.582	.582	.582	.582	.582	.582	.582	.582							.000
	7	**2019**	**Total**	**12.413**	**.000**	**12.413**	**-**	**-**	**-**	**-**	**-**	**-**	**1.035**	**1.035**	**1.035**	**1.035**	**1.035**	**1.034**	**1.034**	**1.034**	**1.034**	**1.034**	**1.034**	**1.034**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	7	2020	NAVY	10.080	.000	10.080									A -	-	-	-	-	-	-	-	-	-	-	.840	.840	.840	.840	.840	5.880
	7	2020	AF (‡)	9.191	.000	9.191									A -	-	-	-	-	-	-	-	-	-	-	.766	.766	.766	.766	.766	5.361
	7	**2020**	**Total**	**19.271**	**.000**	**19.271**									**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.606**	**1.606**	**1.606**	**1.606**	**1.606**	**11.241**
	8	2021	NAVY	5.462	.000	5.462																				A -	-	-	-	-	5.462
	8	2021	AF (‡)	8.440	.000	8.440																				A -	-	-	-	-	8.440
	8	**2021**	**Total**	**13.902**	**.000**	**13.902**																				**-**	**-**	**-**	**-**	**-**	**13.902**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures

Aggregated Items: Air Expendable Countermeasures (1)

Items (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5) F-35 COUNTERMEASURES																															
5.1) ALE-70 (11)																															
Prior Years Deliveries: 666																															
	6	2018	NAVY	.252	.252	.000																									.000
	6	2018	AF (‡)	.616	.616	.000																									.000
	6	**2018**	**Total**	**.868**	**.868**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	6	2019	NAVY	.260	.066	.194	.033	.033	.033	.033	.033	.029	-	-	-	-															.000
	6	2019	AF (‡)	.712	.124	.588	.062	.062	.062	.062	.062	.062	.054	.054	.054	.054															.000
	6	**2019**	**Total**	**.972**	**.190**	**.782**	**.095**	**.095**	**.095**	**.095**	**.095**	**.091**	**.054**	**.054**	**.054**	**.054**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	6	2020	NAVY	.288	.000	.288	-	-	-	-	-	-	.024	.024	.024	.024	.024	.024	.024	.024	.024	.024	.024	.024							.000
	6	2020	AF (‡)	.756	.000	.756	-	-	-	-	-	-	.063	.063	.063	.063	.063	.063	.063	.063	.063	.063	.063	.063							.000
	6	**2020**	**Total**	**1.044**	**.000**	**1.044**	**-**	**-**	**-**	**-**	**-**	**-**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**.087**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	6	2021	NAVY	.516	.000	.516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.043	.043	.043	.043	.043	.043	.258
	6	2021	AF (‡)	.432	.000	.432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.036	.036	.036	.036	.036	.036	.216
	6	**2021**	**Total**	**.948**	**.000**	**.948**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.079**	**.079**	**.079**	**.079**	**.079**	**.079**	**.474**
5.2) MJU-68 (12)																															
Prior Years Deliveries: 9516																															
	7	2018	NAVY	3.319	3.319	.000																									.000
	7	2018	AF (‡)	4.272	4.272	.000																									.000
	7	**2018**	**Total**	**7.591**	**7.591**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	7	2019	NAVY	5.429	5.429	.000																									.000
	7	2019	AF (‡)	6.984	6.984	.000																									.000
	7	**2019**	**Total**	**12.413**	**12.413**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	7	2020	NAVY	10.080	4.200	5.880	.840	.840	.840	.840	.840	.840	.840																		.000
	7	2020	AF (‡)	9.191	3.830	5.361	.766	.766	.766	.766	.766	.766	.765																		.000
	7	**2020**	**Total**	**19.271**	**8.030**	**11.241**	**1.606**	**1.606**	**1.606**	**1.606**	**1.606**	**1.606**	**1.605**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	8	2021	NAVY	5.462	.000	5.462	-	-	-	-	-	-	.456	.456	.455	.455	.455	.455	.455	.455	.455	.455	.455	.455							.000
	8	2021	AF (‡)	8.440	.000	8.440	-	-	-	-	-	-	.704	.704	.704	.704	.703	.703	.703	.703	.703	.703	.703	.703							.000
	8	**2021**	**Total**	**13.902**	**.000**	**13.902**	**-**	**-**	**-**	**-**	**-**	**-**	**1.160**	**1.160**	**1.159**	**1.159**	**1.158**	**1.158**	**1.158**	**1.158**	**1.158**	**1.158**	**1.158**	**1.158**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0182 / Air Expendable Countermeasures

Aggregated Items: Air Expendable Countermeasures (1)

Items (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5) F-35 COUNTERMEASURES																															
5.1) ALE-70 (11)																															
Prior Years Deliveries: 666																															
	6	2018	NAVY	.252	.252	.000																									.000
	6	2018	AF (‡)	.616	.616	.000																									.000
	6	**2018**	**Total**	**.868**	**.868**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	6	2019	NAVY	.260	.260	.000																									.000
	6	2019	AF (‡)	.712	.712	.000																									.000
	6	**2019**	**Total**	**.972**	**.972**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	6	2020	NAVY	.288	.288	.000																									.000
	6	2020	AF (‡)	.756	.756	.000																									.000
	6	**2020**	**Total**	**1.044**	**1.044**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	6	2021	NAVY	.516	.258	.258	.043	.043	.043	.043	.043	.043																			.000
	6	2021	AF (‡)	.432	.216	.216	.036	.036	.036	.036	.036	.036																			.000
	6	**2021**	**Total**	**.948**	**.474**	**.474**	**.079**	**.079**	**.079**	**.079**	**.079**	**.079**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
5.2) MJU-68 (12)																															
Prior Years Deliveries: 9516																															
	7	2018	NAVY	3.319	3.319	.000																									.000
	7	2018	AF (‡)	4.272	4.272	.000																									.000
	7	**2018**	**Total**	**7.591**	**7.591**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	7	2019	NAVY	5.429	5.429	.000																									.000
	7	2019	AF (‡)	6.984	6.984	.000																									.000
	7	**2019**	**Total**	**12.413**	**12.413**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	7	2020	NAVY	10.080	10.080	.000																									.000
	7	2020	AF (‡)	9.191	9.191	.000																									.000
	7	**2020**	**Total**	**19.271**	**19.271**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	8	2021	NAVY	5.462	5.462	.000																									.000
	8	2021	AF (‡)	8.440	8.440	.000																									.000
	8	**2021**	**Total**	**13.902**	**13.902**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0182 / Air Expendable Countermeasures	**Aggregated Items:** Air Expendable Countermeasures (1)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE Systems - Nashua, NH	120	1,440	1,920	0	11	24	35	0	6	25	31
2	Chemring Australia - Lara, AU	15,000	69,210	138,240	0	8	11	19	0	8	11	19
3	TBD (35) - TBD			TBD	0	8	11	19	0	0	0	0

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.
"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Footnotes:
(35) MJU-68 FY 2021 competitive award will determine vendor and production rates.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	70.687	3.654	7.262	6.761	2.100	8.861	6.714	7.153	7.307	7.445	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	70.687	3.654	7.262	6.761	2.100	8.861	6.714	7.153	7.307	7.445	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**70.687**	**3.654**	**7.262**	**6.761**	**2.100**	**8.861**	**6.714**	**7.153**	**7.307**	**7.445**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Jet Assisted Take Off (JATO) / Rocket Assisted Take Off (RATO) are solid propellant rocket motors used in matched pairs to launch subsonic aerial targets in support of fleet training wholeness initiative, and test and evaluation, in support of Acquisition Category (ACAT) programs.

RATO is needed to support the BQM-177A fleet operational and joint exercise requirements. Funding and quantities are in accordance with the fleet needs/fielding and to maintain inventory levels for fleet training and qualification usage in support of Subsonic Aerial targets.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)	P-5a, P-21			- / 70.687	- / 3.654	- / 7.262	- / 6.761	- / 2.100	- / 8.861
P-40	**Total Gross/Weapon System Cost**				**- / 70.687**	**- / 3.654**	**- / 7.262**	**- / 6.761**	**- / 2.100**	**- / 8.861**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding is required to support the procurement of rocket motors in matched pairs to launch subsonic aerial targets. The quantities are in accordance with the fleet needs/fielding and to maintain inventory levels for fleet training and qualification usage in support of the Subsonic Aerial Targets. Additional baseline funding is required for production engineering support, integrated logistics support, safety, product improvement, quality assurance and acceptance testing to support both variants.

OCO:
FY 2021 OCO funding is required to procure MK-85 Rocket Motors to replace MK-117 Rocket Motors expended in pre-deployment combat qualification exercises.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)	**Aggregated Items Title:** Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) JATO / RATO																				
1.1) Mk 85 RATO(†)	A		12,213.48	178	2.174	12,457.00	200	2.491	12,706.14	420	5.337	12,960.26	448	5.806	12,960.26	162	2.100	12,960.26	610	7.906
1.2) Mk 117 MOD O ROCKET MOTORS(†)	A		3,086.61	16,337	50.426	6,225.00	120	0.747	6,350.00	162	1.029	-	-	-	-	-	-	-	-	-
Subtotal: 1) JATO / RATO			**-**	**-**	***52.600***	**-**	**-**	***3.238***	**-**	**-**	***6.366***	**-**	**-**	***5.806***	**-**	**-**	***2.100***	**-**	**-**	***7.906***
2) Support																				
2.1) Production Support RATO	A		-	-	0.424	-	-	0.231	-	-	0.719	-	-	0.875	-	-	-	-	-	0.875
2.2) Production Support JATO	A		-	-	0.221	-	-	0.110	-	-	0.099	-	-	-	-	-	-	-	-	-
2.3) OTHER COSTS	A		-	-	17.442	-	-	0.075	-	-	0.078	-	-	0.080	-	-	-	-	-	0.080
Subtotal: 2) Support			**-**	**-**	***18.087***	**-**	**-**	***0.416***	**-**	**-**	***0.896***	**-**	**-**	***0.955***	**-**	**-**	**-**	**-**	**-**	***0.955***
Total			**-**	**-**	**70.687**	**-**	**-**	**3.654**	**-**	**-**	**7.262**	**-**	**-**	**6.761**	**-**	**-**	**2.100**	**-**	**-**	**8.861**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0194 / Jet Assisted Take Off (JATOs)	Aggregated Items: Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) JATO / RATO												
1.1) Mk 85 RATO(†)		2018	NSWC INDIAN HEAD DIV / Indian Head, MD	PO	NSWC	Nov 2017	May 2019	178	12,213.48	Y		
1.1) Mk 85 RATO(†)		2019	NSWC INDIAN HEAD DIV / Indian Head, MD	PO	NSWC	Nov 2018	May 2020	200	12,457.00	Y		
1.1) Mk 85 RATO(†)		2020	NSWC INDIAN HEAD DIV / Indian Head, MD	PO	NSWC	Dec 2019	May 2021	420	12,706.14	Y		
1.1) Mk 85 RATO(†)		2021	NSWC INDIAN HEAD DIV / Indian Head, MD	PO	NSWC	Dec 2020	May 2022	448	12,960.26	Y		
1.1) Mk 85 RATO(†)	✓	2021	NSWC INDIAN HEAD DIV / Indian Head, MD	PO	NSWC	Dec 2020	May 2022	162	12,960.26	Y		
1.2) Mk 117 MOD O ROCKET MOTORS(†)	✓	2018	NSWC INDIAN HEAD DIV (1) / Indian Head, MD	PO	NSWC	Aug 2018	Jan 2020	88	6,136.36	Y		
1.2) Mk 117 MOD O ROCKET MOTORS(†)	✓	2019	NSWC INDIAN HEAD DIV (1) / Indian Head, MD	PO	NSWC	Jan 2019	Jun 2020	120	6,225.00	Y		
1.2) Mk 117 MOD O ROCKET MOTORS(†)		2020	NSWC INDIAN HEAD DIV (1) / Indian Head, MD	PO	NSWC	Dec 2019	May 2021	162	6,350.00	Y		

(†) indicates the presence of a P-21

Footnotes:

(1) NSWC Indian Head Production rates represent combined Mk-85 and Mk-117 rates.

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)	**Aggregated Items:** Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) JATO / RATO																															
1.1) Mk 85 RATO																															
	9	2018	NAVY	178	0	178		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	15	15	103
	9	2019	NAVY	200	0	200														A -	-	-	-	-	-	-	-	-	-	-	200
	9	2020	NAVY	420	0	420																									420
	9	2021	NAVY	448	0	448																									448
✓	9	2021	NAVY	162	0	162																									162
1.2) Mk 117 MOD O ROCKET MOTORS																															
Prior Years Deliveries: 16249																															
✓	10	2018	NAVY	88	0	88											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	88
✓	10	2019	NAVY	120	0	120																A -	-	-	-	-	-	-	-	-	120
	10	2020	NAVY	162	0	162																									162
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)	**Aggregated Items:** Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) JATO / RATO																															
1.1) Mk 85 RATO																															
	9	2018	NAVY	178	75	103	15	15	15	15	15	15	13																		0
	9	2019	NAVY	200	0	200	-	-	-	-	-	-	-	17	17	17	17	17	17	17	17	16	16	16	16						0
	9	2020	NAVY	420	0	420			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	35	35	35	35	245
	9	2021	NAVY	448	0	448															A -	-	-	-	-	-	-	-	-	-	448
✓	9	2021	NAVY	162	0	162															A -	-	-	-	-	-	-	-	-	-	162
1.2) Mk 117 MOD O ROCKET MOTORS																															
Prior Years Deliveries: 16249																															
✓	10	2018	NAVY	88	0	88	-	-	-	7	7	7	7	7	7	7	7	8	8	8	8										0
✓	10	2019	NAVY	120	0	120	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10					0
	10	2020	NAVY	162	0	162			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	13	13	13	97
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)	**Aggregated Items:** Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) JATO / RATO																															
1.1) Mk 85 RATO																															
	9	2018	NAVY	178	178	0																									0
	9	2019	NAVY	200	200	0																									0
	9	2020	NAVY	420	175	245	35	35	35	35	35	35	35																		0
	9	2021	NAVY	448	0	448	-	-	-	-	-	-	-	38	38	38	38	37	37	37	37	37	37	37	37						0
✓	9	2021	NAVY	162	0	162	-	-	-	-	-	-	-	13	13	13	13	13	13	14	14	14	14	14	14						0
1.2) Mk 117 MOD O ROCKET MOTORS																															
Prior Years Deliveries: 16249																															
✓	10	2018	NAVY	88	88	0																									0
✓	10	2019	NAVY	120	120	0																									0
	10	2020	NAVY	162	65	97	13	14	14	14	14	14	14																		0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0194 / Jet Assisted Take Off (JATOs)	**Aggregated Items:** Jet Assisted Take Off (JATOs)/Rocket Assisted Take Off (RATOs)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	NSWC INDIAN HEAD DIV - Indian Head, MD	200	500	6,000	0	3	18	21	0	3	17	20
2	NSWC INDIAN HEAD DIV [1] - Indian Head, MD	200	500	6,000	0	0	0	0	0	3	17	20

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Footnotes:
[1] NSWC Indian Head Production rates represent combined Mk-85 and Mk-117 rates.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	294.511	70.058	19.161	31.517	0.000	31.517	30.904	29.436	30.009	30.596	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	294.511	70.058	19.161	31.517	0.000	31.517	30.904	29.436	30.009	30.596	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**294.511**	**70.058**	**19.161**	**31.517**	**0.000**	**31.517**	**30.904**	**29.436**	**30.009**	**30.596**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Program procures 5"/54 ammunition fired from Cruiser and Destroyer combatant ships against air, surface, and shore targets. Ammunition items procured includes propelling charges, high-explosive projectiles and training rounds.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	1 / 5 Inch/54 Gun Ammunition	P-5a, P-21			- / 294.511	- / 70.058	- / 19.161	- / 31.517	- / 0.000	- / 31.517
P-40	**Total Gross/Weapon System Cost**				**- / 294.511**	**- / 70.058**	**- / 19.161**	**- / 31.517**	**- / 0.000**	**- / 31.517**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2019 does not reflect the FY 2020 enacted congressional rescission of $22.000 million FY 2019 funds.

FY 2021 Baseline funding procures new MK 187 Projectiles in sufficient quantity to replace projectiles which have been used in operations and training. The MK 187 provides all fuze modes for Naval Surface Fire Support, as well as superior Fast Attack Craft/Fast In-Shore Attack Craft (FAC/FIAC) capability, Anti Air Warfare (AAW) and Anti Ship Cruise Missile (ASCM) defense. Propelling Charges and training projectiles are procured to sustain training and operational requirements.

Baseline program also funds Production Engineering and Gauge requirements for all 5"/54 ammunition. FY 2021 Product Improvement Program will address battery obsolescence issues for fuzes.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	294.511	70.058	19.161	31.517	0.000	31.517
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	294.511	70.058	19.161	31.517	0.000	31.517
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**294.511**	**70.058**	**19.161**	**31.517**	**0.000**	**31.517**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - AC100 5"/54 AMMUNITION HARDWARE Cost																		
Recurring Cost																		
1.1.1) 5"54 CHG, PROP, CLEARING, MK65 (D296)	1,087.58	491	0.534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) 5/54 CHG, PROP, FULL (D326)(†)	909.40	74,327	67.593	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) 5"/54 CHG, PROP, FULL (DA65)(†)	1,145.32	13,494	15.455	1,145.34	6,591	7.549	1,204.96	5,499	6.626	1,229.06	7,605	9.347	-	-	-	1,229.06	7,605	9.347
1.1.4) 5"54 PROJ, BLP/T (D349)(†)	438.22	51,937	22.760	-	-	-	499.01	3,840	1.916	509.04	5,328	2.712	-	-	-	509.04	5,328	2.712
1.1.5) 5"/54 PROJ, MULTI OPTION FUZE (DA48)	1,941.27	28,944	56.188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.6) MK187 MOD 0 PROJECTILE (DA53)(†) (1)	-	-	-	3,486.22	14,902	51.952	5,834.75	1,180	6.885	4,209.72	3,510	14.776	-	-	-	4,209.72	3,510	14.776
1.1.7) MK14 Tank	-	-	0.500	-	-	1.540	-	-	-	-	-	-	-	-	-	-	-	-
1.1.8) TRANSPORTATION ACCT CODE	-	-	3.154	-	-	0.279	-	-	-	-	-	0.240	-	-	-	-	-	0.240
1.1.9) PE/QA SMCA	-	-	1.349	-	-	0.026	-	-	0.184	-	-	-	-	-	-	-	-	-
1.1.10) PRIOR YEARS CUMULATIVE FUNDING	-	-	25.388	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0250 / 5 Inch/54 Gun Ammunition	Item Number / Title [DODIC]: 1 / 5 Inch/54 Gun Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Recurring Cost	-	-	*192.921*	-	-	*61.346*	-	-	*15.611*	-	-	*27.075*	-	-	-	-	-	*27.075*
Subtotal: Hardware - AC100 5"/54 AMMUNITION HARDWARE Cost	**-**	**-**	***192.921***	**-**	**-**	***61.346***	**-**	**-**	***15.611***	**-**	**-**	***27.075***	**-**	**-**	**-**	**-**	**-**	***27.075***
Hardware - AC850 PRODUCT IMPROVEMENT Cost																		
Recurring Cost																		
2.1.1) PRODUCT IMPROVEMENT (2)	-	-	23.118	-	-	0.615	-	-	0.203	-	-	0.597	-	-	-	-	-	0.597
Subtotal: Recurring Cost	-	-	*23.118*	-	-	*0.615*	-	-	*0.203*	-	-	*0.597*	-	-	-	-	-	*0.597*
Subtotal: Hardware - AC850 PRODUCT IMPROVEMENT Cost	**-**	**-**	***23.118***	**-**	**-**	***0.615***	**-**	**-**	***0.203***	**-**	**-**	***0.597***	**-**	**-**	**-**	**-**	**-**	***0.597***
Hardware - AC893 RENOVATION COMPONENTS Cost																		
Recurring Cost																		
3.1.1) RENOVATION COMPONENTS	-	-	35.291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*35.291*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - AC893 RENOVATION COMPONENTS Cost	**-**	**-**	***35.291***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware - AC894 GAUGE REQUIREMENTS Cost																		
Recurring Cost																		
4.1.1) GAUGE REQUIREMENTS	-	-	3.664	-	-	0.360	-	-	0.315	-	-	0.359	-	-	-	-	-	0.359
Subtotal: Recurring Cost	-	-	*3.664*	-	-	*0.360*	-	-	*0.315*	-	-	*0.359*	-	-	-	-	-	*0.359*
Subtotal: Hardware - AC894 GAUGE REQUIREMENTS Cost	**-**	**-**	***3.664***	**-**	**-**	***0.360***	**-**	**-**	***0.315***	**-**	**-**	***0.359***	**-**	**-**	**-**	**-**	**-**	***0.359***
Hardware - ACG86 Overseas Contingency Operations (OCO) Cost																		
Non Recurring Cost																		
5.1.1) Overseas Contingency Operations (OCO)	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*0.001*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - ACG86 Overseas Contingency Operations (OCO) Cost	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware - (AC850) NON-STANDARD Cost																		
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0250 / 5 Inch/54 Gun Ammunition	Item Number / Title [DODIC]: 1 / 5 Inch/54 Gun Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
6.1.1) NON-STANDARD	-	-	2.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*2.286*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - (AC850) NON-STANDARD Cost	**-**	**-**	***2.286***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - AC830 PRODUCTION ENGINEERING Cost																		
7.1) PRODUCTION ENGINEERING	-	-	36.230	-	-	3.187	-	-	3.032	-	-	3.486	-	-	-	-	-	3.486
7.2) QCCCF PE Support	-	-	1.000	-	-	4.550	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - AC830 PRODUCTION ENGINEERING Cost	**-**	**-**	***37.230***	**-**	**-**	***7.737***	**-**	**-**	***3.032***	**-**	**-**	***3.486***	**-**	**-**	**-**	**-**	**-**	***3.486***
Gross/Weapon System Cost	**-**	**-**	**294.511**	**-**	**-**	**70.058**	**-**	**-**	**19.161**	**-**	**-**	**31.517**	**-**	**-**	**0.000**	**-**	**-**	**31.517**

Remarks:

[Hardware] AC100: 5"54 Ammunition Hardware includes costs to procure components, load and assembly of complete rounds, and acceptance tests. Costs associated with Transportation Account Code (TAC) are for first destination of delivery of production items. Unit costs and quantities are adjusted during year of execution.

[Hardware] AC850: Product Improvement engineering services and related efforts by government activities, the producing contractor or manufacturing installation, are executed to extend the useful military life of an item or to improve the item within the current performance envelope.

[Hardware] AC893: Renovation components upgrade unserviceable rounds into ready-for-issue condition.

[Hardware] AC894: Gauge Requirements are for the procurement of gauges, auxiliary and test equipment and support costs necessary for ammunition metrology to check critical dimensions/parameters of ammunition items and their parts.

[Hardware] AC850: Non Standard funding procures reusable packaging required for transportation and storage of projectiles and propelling charges.

[Support Cost] AC830: Production engineering for engineering services to support new acquisition and in production ammunition.

(†) indicates the presence of a P-5a

Footnotes:

(1) FY 2020 enacted rescission of $22M FY 2019 funds is not included in FY 2019 total. DA53 FY 2019 and FY 2020 price increase attributed to lower procurement quantity.

(2) FY2021 Product Improvement Program will address battery obsolescence issues for fuzes.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0250 / 5 Inch/54 Gun Ammunition	Item Number / Title [DODIC]: 1 / 5 Inch/54 Gun Ammunition

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.2) 5/54 CHG, PROP, FULL (D326)(†)		2015	MCALESTER AAP3 / MCALESTER, OK	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2020	18,330	907.75	Y		Nov 2014
1.1.2) 5/54 CHG, PROP, FULL (D326)(†)		2016	MCALESTER AAP3 / MCALESTER, OK	C / FFP	JMC ROCK ISLAND	Mar 2016	Aug 2021	9,005	925.93	Y		Nov 2015
1.1.3) 5"/54 CHG, PROP, FULL (DA65)(†)		2018	GDOTS/CCC / VALLEY FIELD, CA	C / FFP	NSWC IH	Oct 2018	Nov 2020	13,494	1,145.34	Y		Jun 2018
1.1.3) 5"/54 CHG, PROP, FULL (DA65)(†)		2019	GDOTS/CCC / VALLEY FIELD, CA	C / FFP	NSWC IH	Oct 2018	Jan 2021	6,591	1,145.34	Y		Jun 2018
1.1.3) 5"/54 CHG, PROP, FULL (DA65)(†)		2020	GDOTS/CCC / VALLEY FIELD, CA	C / FFP	NSWC IH	Nov 2019	Nov 2021	5,499	1,204.96	Y		Jun 2018
1.1.3) 5"/54 CHG, PROP, FULL (DA65)(†)		2021	GDOTS/CCC / VALLEY FIELD, CA	C / FFP	NSWC IH	Mar 2021	Mar 2023	7,605	1,229.06	Y		Jun 2018
1.1.4) 5"54 PROJ, BLP/T (D349)(†)		2020	TBD / TBD	C / FFP	NSWC IH	Mar 2020	Mar 2022	3,840	499.01	Y		Feb 2019
1.1.4) 5"54 PROJ, BLP/T (D349)(†)		2021	TBD / TBD	C / FFP	NSWC IH	Mar 2021	Mar 2023	5,328	509.04	Y		Feb 2019
1.1.6) MK187 MOD 0 PROJECTILE (DA53)(†)		2019	TBD / TBD	C / FFP	NSWC IH	Mar 2020	Mar 2022	14,902	3,486.22	Y		Feb 2019
1.1.6) MK187 MOD 0 PROJECTILE (DA53)(†)		2020	TBD / TBD	C / FFP	NSWC IH	Mar 2020	Jun 2022	1,180	5,834.75	Y		Feb 2019
1.1.6) MK187 MOD 0 PROJECTILE (DA53)(†)		2021	TBD / TBD	C / FFP	NSWC IH	Mar 2021	Mar 2023	3,510	4,209.72	Y		Feb 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

Cost Elements (Units in Thousands)							Fiscal Year 2015												Fiscal Year 2016												BALANCE
										Calendar Year 2015												Calendar Year 2016									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.2) 5/54 CHG, PROP, FULL (D326)																															
Prior Years Deliveries: 46992																															
	1	2015	NAVY	18.330	.000	18.330						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.330
	1	2016	NAVY	9.005	.000	9.005																		A -	-	-	-	-	-	-	9.005
1.1.3) 5"/54 CHG, PROP, FULL (DA65)																															
	2	2018	NAVY	13.494	.000	13.494																									13.494
	2	2019	NAVY	6.591	.000	6.591																									6.591
	2	2020	NAVY	5.499	.000	5.499																									5.499
	2	2021	NAVY	7.605	.000	7.605																									7.605
1.1.4) 5"54 PROJ, BLP/T (D349)																															
Prior Years Deliveries: 51937																															
	3	2020	NAVY	3.840	.000	3.840																									3.840
	3	2021	NAVY	5.328	.000	5.328																									5.328
1.1.6) MK187 MOD 0 PROJECTILE (DA53) (1)																															
	4	2019	NAVY	14.902	.000	14.902																									14.902
	4	2020	NAVY	1.180	.000	1.180																									1.180
	4	2021	NAVY	3.510	.000	3.510																									3.510
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

Cost Elements (Units in Thousands)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017												Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.2) 5/54 CHG, PROP, FULL (D326)																															
Prior Years Deliveries: 46992																															
	1	2015	NAVY	18.330	.000	18.330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.330
	1	2016	NAVY	9.005	.000	9.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.005
1.1.3) 5"/54 CHG, PROP, FULL (DA65)																															
	2	2018	NAVY	13.494	.000	13.494																									13.494
	2	2019	NAVY	6.591	.000	6.591																									6.591
	2	2020	NAVY	5.499	.000	5.499																									5.499
	2	2021	NAVY	7.605	.000	7.605																									7.605
1.1.4) 5"54 PROJ, BLP/T (D349)																															
Prior Years Deliveries: 51937																															
	3	2020	NAVY	3.840	.000	3.840																									3.840
	3	2021	NAVY	5.328	.000	5.328																									5.328
1.1.6) MK187 MOD 0 PROJECTILE (DA53) (1)																															
	4	2019	NAVY	14.902	.000	14.902																									14.902
	4	2020	NAVY	1.180	.000	1.180																									1.180
	4	2021	NAVY	3.510	.000	3.510																									3.510
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

Cost Elements (Units in Thousands)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.2) 5/54 CHG, PROP, FULL (D326)																															
Prior Years Deliveries: 46992																															
	1	2015	NAVY	18.330	.000	18.330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.000	8.330						.000
	1	2016	NAVY	9.005	.000	9.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.005
1.1.3) 5"/54 CHG, PROP, FULL (DA65)																															
	2	2018	NAVY	13.494	.000	13.494	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.494
	2	2019	NAVY	6.591	.000	6.591	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.591
	2	2020	NAVY	5.499	.000	5.499														A -	-	-	-	-	-	-	-	-	-	-	5.499
	2	2021	NAVY	7.605	.000	7.605																									7.605
1.1.4) 5"54 PROJ, BLP/T (D349)																															
Prior Years Deliveries: 51937																															
	3	2020	NAVY	3.840	.000	3.840																		A -	-	-	-	-	-	-	3.840
	3	2021	NAVY	5.328	.000	5.328																									5.328
1.1.6) MK187 MOD 0 PROJECTILE (DA53) (1)																															
	4	2019	NAVY	14.902	.000	14.902																		A -	-	-	-	-	-	-	14.902
	4	2020	NAVY	1.180	.000	1.180																		A -	-	-	-	-	-	-	1.180
	4	2021	NAVY	3.510	.000	3.510																									3.510
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition | **Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.2) 5/54 CHG, PROP, FULL (D326)																															
Prior Years Deliveries: 46992																															
	1	2015	NAVY	18.330	18.330	.000																									.000
	1	2016	NAVY	9.005	.000	9.005	-	-	-	-	-	-	-	-	-	-	5.000	4.005													.000
1.1.3) 5"/54 CHG, PROP, FULL (DA65)																															
	2	2018	NAVY	13.494	.000	13.494	-	7.500	-	5.994																					.000
	2	2019	NAVY	6.591	.000	6.591	-	-	-	5.000	1.591																				.000
	2	2020	NAVY	5.499	.000	5.499	-	-	-	-	-	-	-	-	-	-	-	-	-	3.000	2.499										.000
	2	2021	NAVY	7.605	.000	7.605						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.605
1.1.4) 5"54 PROJ, BLP/T (D349)																															
Prior Years Deliveries: 51937																															
	3	2020	NAVY	3.840	.000	3.840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.000	1.840						.000
	3	2021	NAVY	5.328	.000	5.328						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.328
1.1.6) MK187 MOD 0 PROJECTILE (DA53) (1)																															
	4	2019	NAVY	14.902	.000	14.902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.000	5.000	4.902					.000
	4	2020	NAVY	1.180	.000	1.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.180				.000
	4	2021	NAVY	3.510	.000	3.510						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.510
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.2) 5/54 CHG, PROP, FULL (D326)																															
Prior Years Deliveries: 46992																															
	1	2015	NAVY	18.330	18.330	.000																									.000
	1	2016	NAVY	9.005	9.005	.000																									.000
1.1.3) 5"/54 CHG, PROP, FULL (DA65)																															
	2	2018	NAVY	13.494	13.494	.000																									.000
	2	2019	NAVY	6.591	6.591	.000																									.000
	2	2020	NAVY	5.499	5.499	.000																									.000
	2	2021	NAVY	7.605	.000	7.605	-	-	-	-	-	4.000	3.605																		.000
1.1.4) 5"54 PROJ, BLP/T (D349)																															
Prior Years Deliveries: 51937																															
	3	2020	NAVY	3.840	3.840	.000																									.000
	3	2021	NAVY	5.328	.000	5.328	-	-	-	-	-	3.000	2.328																		.000
1.1.6) MK187 MOD 0 PROJECTILE (DA53) (1)																															
	4	2019	NAVY	14.902	14.902	.000																									.000
	4	2020	NAVY	1.180	1.180	.000																									.000
	4	2021	NAVY	3.510	.000	3.510	-	-	-	-	-	2.000	1.510																		.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0250 / 5 Inch/54 Gun Ammunition	**Item Number / Title [DODIC]:** 1 / 5 Inch/54 Gun Ammunition

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	MCALESTER AAP3 - MCALESTER, OK	5,000	60,000	120,000	6	6	60	66	6	6	36	42
2	GDOTS/CCC - VALLEY FIELD, CA	5,000	60,000	120,000	6	6	23	29	6	6	18	24
3	TBD - TBD	3,000	36,000	60,000	6	6	27	33	6	6	24	30
4	TBD - TBD	3,000	6,000	15,000	6	3	24	27	6	3	18	21

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	174.300	38.151	37.193	38.005	0.000	38.005	38.615	39.352	40.125	40.916	-	446.657
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	174.300	38.151	37.193	38.005	0.000	38.005	38.615	39.352	40.125	40.916	-	446.657
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**174.300**	**38.151**	**37.193**	**38.005**	**0.000**	**38.005**	**38.615**	**39.352**	**40.125**	**40.916**	**-**	**446.657**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Program procures intermediate caliber family of fixed ammunition for United States Navy and United States Coast Guard (USCG) use. The Navy's primary use for intermediate caliber ammunition is to engage both surface and air targets. USCG primary use is for drug interdiction, homeland defense, and Visit, Board, Search and Seizure (VBSS). Intermediate caliber ammunition is currently employed on the Littoral Combat Ship (LCS) and the USCG National Security Cutter.

[P40A / CART., 57MM TP MK296 (BA23)]: 57MM ammunition is used in the MK110 Gun to provide Anti Air Warfare, Anti Surface Warfare and Fast Attack Craft/Fast Attack In-Shore Craft (FAC/FAIC) defense on USN LCS and USCG Maritime Security Cutter Large platforms.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Intermediate Caliber Gun Ammo	P-5a, P-21			- / 174.300	- / 38.151	- / 37.193	- / 38.005	- / -	- / 38.005
P-40	**Total Gross/Weapon System Cost**				**- / 174.300**	**- / 38.151**	**- / 37.193**	**- / 38.005**	**- / 0.000**	**- / 38.005**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 production engineering and gauge requirements increased slightly to account for additional quantities.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo	**Aggregated Items Title:** Intermediate Caliber Gun Ammo

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) AL100 TRANSPORTATION ACCOUNT CODE (1)																				
1.1) TRANSPORTATION ACCOUNT CODE	A		-	-	0.377	-	-	0.152	-	-	0.069	-	-	0.058	-	-	-	-	-	0.058
Subtotal: 1) AL100 TRANSPORTATION ACCOUNT CODE			**-**	**-**	***0.377***	**-**	**-**	***0.152***	**-**	**-**	***0.069***	**-**	**-**	***0.058***	**-**	**-**	**-**	**-**	**-**	***0.058***
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																				
2.1) CART., 57MM DUMMY, RAMMABLE (BA50)(†)	A		323.77	244	0.079	490.00	600	0.294	-	-	-	-	-	-	-	-	-	-	-	-
2.2) CART., 57MM, 3P MK295 (BA22)(†)	A		4,695.69	16,457	77.277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3) CART., 57MM TP MK296 (BA23)(†)	A		2,481.01	19,771	49.052	-	-	-	1,245.47	5,997	7.469	1,270.38	5,961	7.573	-	-	-	1,270.38	5,961	7.573
2.4) CART 57MM ALaMO (HE-4G)(†)	A		-	-	-	22,000.00	1,238	27.236	14,000.00	1,935	27.090	13,000.00	1,562	20.306	-	-	-	13,000.00	1,562	20.306
2.5) CART., 57MM, HE-PD(†)	A		2,274.25	5,670	12.895	1,734.45	4,679	8.115	-	-	-	1,820.70	4,000	7.283	-	-	-	1,820.70	4,000	7.283
Subtotal: 2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE			**-**	**-**	***139.303***	**-**	**-**	***35.645***	**-**	**-**	***34.559***	**-**	**-**	***35.162***	**-**	**-**	**-**	**-**	**-**	***35.162***
3) AL830 PRODUCTION ENGINEERING (2)																				
3.1) PRODUCTION ENGINEERING	A		-	-	16.052	-	-	2.262	-	-	2.505	-	-	2.702	-	-	-	-	-	2.702
Subtotal: 3) AL830 PRODUCTION ENGINEERING			**-**	**-**	***16.052***	**-**	**-**	***2.262***	**-**	**-**	***2.505***	**-**	**-**	***2.702***	**-**	**-**	**-**	**-**	**-**	***2.702***
4) AL850 PRODUCT IMPROVEMENT (3)																				
4.1) PRODUCT IMPROVEMENT	A		-	-	17.763	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) AL850 PRODUCT IMPROVEMENT			**-**	**-**	***17.763***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
5) AL894 GAUGE REQUIREMENTS (4)																				
5.1) GAUGE REQUIREMENTS	A		-	-	0.805	-	-	0.092	-	-	0.060	-	-	0.083	-	-	-	-	-	0.083
Subtotal: 5) AL894 GAUGE REQUIREMENTS			**-**	**-**	***0.805***	**-**	**-**	***0.092***	**-**	**-**	***0.060***	**-**	**-**	***0.083***	**-**	**-**	**-**	**-**	**-**	***0.083***
Total			**-**	**-**	**174.300**	**-**	**-**	**38.151**	**-**	**-**	**37.193**	**-**	**-**	**38.005**	**-**	**-**	**-**	**-**	**-**	**38.005**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Footnotes:

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo	**Aggregated Items Title:** Intermediate Caliber Gun Ammo

(1) AL100: Provides for complete rounds and conducts acceptance testing of intermediate caliber ammunition. Procurement includes intermediate caliber ammunition, all types, and includes high explosive service rounds, Target Practice and dummy rounds. Provides for cost associated with Transportation Account Code (TAC) that are for first destination of delivery of production items.

(2) AL830: Production Engineering - Provides for production engineering services to support new acquisition and in production ammunition.

(3) AL850: Product Improvement engineering services and related efforts by government activities, the producing contractor or manufacturing installation, are executed to extend the useful military life of an item or to improve the item within the current performance envelope.

(4) AL894: Gauge Requirements - Provides for procurement of gauges, auxiliary and test equipment and support costs necessary for ammunition metrology to check critical dimensions/parameters of ammunition items and their parts. This is to assure proper mating of parts and subassemblies, assure correct interfacing between the ammunition and guns, and proper ammunition performance.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo	Aggregated Items: Intermediate Caliber Gun Ammo

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE												
2.1) CART., 57MM DUMMY, RAMMABLE (BA50)		2019	TBD / TBD	C / FFP	NSWC-IH	Jan 2020	Jul 2020	600	490.00	Y		Jul 2019
2.2) CART., 57MM, 3P MK295 (BA22)(†)		2013	BAE SYSTEMS / MINNESOTA	SS / FFP	Picatinny, NJ	Apr 2014	Jun 2020	2,500	6,790.47	Y		Aug 2013
2.2) CART., 57MM, 3P MK295 (BA22)(†)		2014	BAE SYSTEMS / MINNESOTA	SS / FFP	NSWC-IH	May 2015	Dec 2020	6,360	4,113.40	Y		Oct 2014
2.2) CART., 57MM, 3P MK295 (BA22)(†)		2016	BAE SYSTEMS / MINNESOTA	SS / FFP	Picatinny, NJ	Aug 2016	May 2022	3,580	4,278.47	Y		Jan 2016
2.3) CART., 57MM TP MK296 (BA23)(†)		2017	BAE SYSTEMS / MINNESOTA	SS / FFP	NSWC-IH	Aug 2018	Oct 2021	3,690	2,096.19	Y		Oct 2017
2.3) CART., 57MM TP MK296 (BA23)(†)		2018	BAE SYSTEMS / MINNESOTA	SS / FFP	NSWC-IH	Aug 2018	Oct 2021	3,872	2,291.02	Y		Oct 2017
2.3) CART., 57MM TP MK296 (BA23)(†)		2020	TBD / TBD	C / FFP	NSWC-IH	Jun 2020	Jun 2022	5,997	1,245.47	Y		Feb 2020
2.3) CART., 57MM TP MK296 (BA23)(†)		2021	TBD / TBD	C / FFP	NSWC-IH	Jan 2021	Jan 2023	5,961	1,270.38	Y		Feb 2020
2.4) CART 57MM ALaMO (HE-4G)(†)		2019	L-3 MUSTANG / DALLAS, TX	SS / FFP	NAVSEA	May 2019	May 2020	1,238	22,000.00	Y		May 2018
2.4) CART 57MM ALaMO (HE-4G)(†)		2020	L-3 MUSTANG / DALLAS, TX	SS / FFP	NAVSEA	Apr 2020	Jun 2021	1,935	14,000.00	Y		May 2018
2.4) CART 57MM ALaMO (HE-4G)(†)		2021	TBD / TBD	C / FFP	NSWC-IH	Jul 2021	Sep 2022	1,562	13,000.00	N	Jan 2020	May 2020
2.5) CART., 57MM, HE-PD(†)		2016 (5)	VARIOUS / VARIOUS	C / FFP	Picatinny, NJ	Nov 2016	Mar 2018	2,800	1,550.00	Y		Feb 2016
2.5) CART., 57MM, HE-PD(†)		2017 (6)	VARIOUS / VARIOUS	C / FFP	Picatinny, NJ	Nov 2017	Mar 2019	1,500	4,333.33	Y		Feb 2016
2.5) CART., 57MM, HE-PD(†)		2018	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	NSWC-IH	Jan 2019	Jan 2021	1,370	1,500.00	Y		Sep 2018
2.5) CART., 57MM, HE-PD(†)		2019	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	NSWC-IH	Jan 2019	Jan 2021	4,679	1,734.45	Y		Sep 2018
2.5) CART., 57MM, HE-PD(†)		2021	TBD / TBD	C / FFP	NSWC-IH	Feb 2021	Feb 2023	4,000	1,820.70	Y		Aug 2020

(†) indicates the presence of a P-21

Footnotes:

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo	**Aggregated Items:** Intermediate Caliber Gun Ammo

(5) Contract modifications to existing awards to produce supplemental 57mm high explosive point detonating (HE-PD) qualification test assets. These HE-PD configurations will be used for future competitive procurements. Manufacturers are GENERAL DYNAMICS, NAMMO TALLEY, and CHEMRING ORDNANCE.

(6) Contract modifications to existing awards to produce supplemental 57mm high explosive point detonating (HE-PD) qualification test assets. These HE-PD configurations will be used for future competitive procurements. Manufacturers are GENERAL DYNAMICS, NAMMO TALLEY, and CHEMRING ORDNANCE.

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo

Aggregated Items: Intermediate Caliber Gun Ammo

Items (Units in Each)							Fiscal Year 2014												Fiscal Year 2015												BALANCE
							Calendar Year 2014												Calendar Year 2015												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																															
2.2) CART., 57MM, 3P MK295 (BA22)																															
Prior Years Deliveries: 4017																															
	11	2013	NAVY	2,500	0	2,500							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500
	12	2014	NAVY	6,360	0	6,360																				A -	-	-	-	-	6,360
	12	2016	NAVY	3,580	0	3,580																									3,580
2.3) CART., 57MM TP MK296 (BA23)																															
Prior Years Deliveries: 12209																															
	13	2017	NAVY	3,690	0	3,690																									3,690
	13	2018	NAVY	3,872	0	3,872																									3,872
	14	2020	NAVY	5,997	0	5,997																									5,997
	14	2021	NAVY	5,961	0	5,961																									5,961
2.4) CART 57MM ALaMO (HE-4G)																															
	15	2019	NAVY	1,238	0	1,238																									1,238
	15	2020	NAVY	1,935	0	1,935																									1,935
	16	2021	NAVY	1,562	0	1,562																									1,562
2.5) CART., 57MM, HE-PD																															
	18	2016	NAVY	2,800	0	2,800																									2,800
	18	2017	NAVY	1,500	0	1,500																									1,500
	19	2018	NAVY	1,370	0	1,370																									1,370
	19	2019	NAVY	4,679	0	4,679																									4,679
	17	2021	NAVY	4,000	0	4,000																									4,000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo

Aggregated Items: Intermediate Caliber Gun Ammo

Items (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																															
2.2) CART., 57MM, 3P MK295 (BA22)																															
Prior Years Deliveries: 4017																															
	11	2013	NAVY	2,500	0	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500
	12	2014	NAVY	6,360	0	6,360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,360
	12	2016	NAVY	3,580	0	3,580											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	3,580
2.3) CART., 57MM TP MK296 (BA23)																															
Prior Years Deliveries: 12209																															
	13	2017	NAVY	3,690	0	3,690																									3,690
	13	2018	NAVY	3,872	0	3,872																									3,872
	14	2020	NAVY	5,997	0	5,997																									5,997
	14	2021	NAVY	5,961	0	5,961																									5,961
2.4) CART 57MM ALaMO (HE-4G)																															
	15	2019	NAVY	1,238	0	1,238																									1,238
	15	2020	NAVY	1,935	0	1,935																									1,935
	16	2021	NAVY	1,562	0	1,562																									1,562
2.5) CART., 57MM, HE-PD																															
	18	2016	NAVY	2,800	0	2,800														A -	-	-	-	-	-	-	-	-	-	-	2,800
	18	2017	NAVY	1,500	0	1,500																									1,500
	19	2018	NAVY	1,370	0	1,370																									1,370
	19	2019	NAVY	4,679	0	4,679																									4,679
	17	2021	NAVY	4,000	0	4,000																									4,000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo

Aggregated Items: Intermediate Caliber Gun Ammo

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																															
2.2) CART., 57MM, 3P MK295 (BA22)																															
Prior Years Deliveries: 4017																															
	11	2013	NAVY	2,500	0	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500
	12	2014	NAVY	6,360	0	6,360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,360
	12	2016	NAVY	3,580	0	3,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,580
2.3) CART., 57MM TP MK296 (BA23)																															
Prior Years Deliveries: 12209																															
	13	2017	NAVY	3,690	0	3,690											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	3,690
	13	2018	NAVY	3,872	0	3,872											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	3,872
	14	2020	NAVY	5,997	0	5,997																									5,997
	14	2021	NAVY	5,961	0	5,961																									5,961
2.4) CART 57MM ALaMO (HE-4G)																															
	15	2019	NAVY	1,238	0	1,238																			A -	-	-	-	-	-	1,238
	15	2020	NAVY	1,935	0	1,935																									1,935
	16	2021	NAVY	1,562	0	1,562																									1,562
2.5) CART., 57MM, HE-PD																															
	18	2016	NAVY	2,800	0	2,800	-	-	-	-	-	2,800																			0
	18	2017	NAVY	1,500	0	1,500		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,500							0
	19	2018	NAVY	1,370	0	1,370																A -	-	-	-	-	-	-	-	-	1,370
	19	2019	NAVY	4,679	0	4,679																A -	-	-	-	-	-	-	-	-	4,679
	17	2021	NAVY	4,000	0	4,000																									4,000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo

Aggregated Items: Intermediate Caliber Gun Ammo

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																															
2.2) CART., 57MM, 3P MK295 (BA22)																															
Prior Years Deliveries: 4017																															
	11	2013	NAVY	2,500	0	2,500	-	-	-	-	-	-	-	-	2,500																0
	12	2014	NAVY	6,360	0	6,360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,360										0
	12	2016	NAVY	3,580	0	3,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,580
2.3) CART., 57MM TP MK296 (BA23)																															
Prior Years Deliveries: 12209																															
	13	2017	NAVY	3,690	0	3,690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,690
	13	2018	NAVY	3,872	0	3,872	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,872
	14	2020	NAVY	5,997	0	5,997									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,997
	14	2021	NAVY	5,961	0	5,961																A -	-	-	-	-	-	-	-	-	5,961
2.4) CART 57MM ALaMO (HE-4G)																															
	15	2019	NAVY	1,238	0	1,238	-	-	-	-	-	-	-	500	386	352															0
	15	2020	NAVY	1,935	0	1,935							A -	-	-	-	-	-	-	-	-	-	-	-	-	500	500	500	435		0
	16	2021	NAVY	1,562	0	1,562																					A -	-	-		1,562
2.5) CART., 57MM, HE-PD																															
	18	2016	NAVY	2,800	2,800	0																									0
	18	2017	NAVY	1,500	1,500	0																									0
	19	2018	NAVY	1,370	0	1,370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,370									0
	19	2019	NAVY	4,679	0	4,679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,616	2,063								0
	17	2021	NAVY	4,000	0	4,000																	A -	-	-	-	-	-	-	-	4,000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0266 / Intermediate Caliber Gun Ammo

Aggregated Items: Intermediate Caliber Gun Ammo

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2) AL100 INTERMEDIATE CALIBER GUN AMMUNITION HARDWARE																															
2.2) CART., 57MM, 3P MK295 (BA22)																															
Prior Years Deliveries: 4017																															
	11	2013	NAVY	2,500	2,500	0																									0
	12	2014	NAVY	6,360	6,360	0																									0
	12	2016	NAVY	3,580	0	3,580	-	-	-	-	-	-	-	3,580																	0
2.3) CART., 57MM TP MK296 (BA23)																															
Prior Years Deliveries: 12209																															
	13	2017	NAVY	3,690	0	3,690	2,000	1,690																							0
	13	2018	NAVY	3,872	0	3,872	2,000	1,872																							0
	14	2020	NAVY	5,997	0	5,997	-	-	-	-	-	-	-	-	4,000	1,997															0
	14	2021	NAVY	5,961	0	5,961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,000	1,961								0
2.4) CART 57MM ALaMO (HE-4G)																															
	15	2019	NAVY	1,238	1,238	0																									0
	15	2020	NAVY	1,935	1,935	0																									0
	16	2021	NAVY	1,562	0	1,562	-	-	-	-	-	-	-	-	-	-	-	562	500	500											0
2.5) CART., 57MM, HE-PD																															
	18	2016	NAVY	2,800	2,800	0																									0
	18	2017	NAVY	1,500	1,500	0																									0
	19	2018	NAVY	1,370	1,370	0																									0
	19	2019	NAVY	4,679	4,679	0																									0
	17	2021	NAVY	4,000	0	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000	2,000							0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0266 / Intermediate Caliber Gun Ammo	**Aggregated Items:** Intermediate Caliber Gun Ammo

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE SYSTEMS - MINNESOTA	10,000	12,600	35,280	6	6	74	80	6	6	29	35
2	BAE SYSTEMS - MINNESOTA	2,300	7,500	15,000	6	8	67	75	6	6	60	66
3	BAE SYSTEMS - MINNESOTA	2,300	7,500	15,000	6	6	38	44	6	6	12	18
4	TBD - TBD	2,300	7,500	15,000	6	6	24	30	6	6	18	24
5	L-3 MUSTANG - DALLAS, TX	500	5,000	10,000	6	3	14	17	6	3	12	15
6	TBD - TBD	500	5,000	10,000	6	3	14	17	6	3	12	15
7	TBD - TBD	10,000	12,000	30,000	6	5	24	29	6	5	20	25
8	VARIOUS - VARIOUS	10,000	12,000	30,000	6	6	12	18	6	6	12	18
9	CHEMRING ORDANCE INC - PERRY, FL	10,000	12,000	30,000	6	6	24	30	6	6	20	26

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 000

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10,317.197	44.680	36.328	40.626	2.611	43.237	41.260	42.003	42.906	43.748	-	10,611.359
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10,317.197	44.680	36.328	40.626	2.611	43.237	41.260	42.003	42.906	43.748	-	10,611.359
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10,317.197**	**44.680**	**36.328**	**40.626**	**2.611**	**43.237**	**41.260**	**42.003**	**42.906**	**43.748**	**-**	**10,611.359**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Program provides for Other Ship Gun Ammunition which consists of medium caliber types (20MM, 25MM, 30MM, 40MM). This supports Navy ships, and active and reserve ashore warfare forces including Naval Expeditionary Combat Command (NECC), Mobile Security Forces (MSF), fleet combat readiness groups, inshore undersea warfare groups and several other types of operational units. Program includes support for emergent anti-terrorism/force protection and homeland defense requirements.

This program also supports Naval Special Warfare (NSW) service common munitions which are required to provide US Navy SEAL teams, NSW small tactical units and task groups and Special Boat Teams with a fire power advantage, area target engagement, standoff and extended range capability, as well as an anti-armor capability. This includes medium caliber mortars and stand-off weapons systems such as 40MM, 60MM and 81MM and Javelin. These munitions provide NSW an essential force protection capability and increases the combat power of NSW tactical elements.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Navy	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	44.623	36.273	40.570	2.611	43.181	41.203	41.945	42.847	43.688
NR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.057	0.055	0.056	-	0.056	0.057	0.058	0.059	0.060
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**44.680**	**36.328**	**40.626**	**2.611**	**43.237**	**41.260**	**42.003**	**42.906**	**43.748**

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 000

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / Integrated Warfare Systems	P-5a, P-21			- / 279.984	- / 38.214	- / 27.057	- / 34.284	- / 0.000	- / 34.284
P-5	2 / Naval Special Warfare	P-5a, P-21			- / 10,037.213	- / 6.466	- / 9.271	- / 6.342	- / 2.611	- / 8.953
P-40	**Total Gross/Weapon System Cost**				**- / 10,317.197**	**- / 44.680**	**- / 36.328**	**- / 40.626**	**- / 2.611**	**- / 43.237**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding procures 20MM ammunition used for ship defense in MK15 Close-In Weapon System, 25MM ammunition used for Fast Attack Craft/Fast Attack In-Shore Craft (FAC/FIAC) defense in MK38 Machine Gun System on all platforms other than LPD and LCS, and 30MM ammunition used for FAC/FIAC defense in MK46 MOD 2 Gun Weapon System on LPD and LCS. Baseline funding also provides Production Engineering and Gauge requirements for 20MM, 25MM, and 30MM ammunition.

FY 2021 funding also procures Naval Special Warfare (NSW) stand off weapon rounds including 66MM munitions for the M72 Light Anti-armor Weapon. Baseline program funds are also necessary for production engineering as required by DoD and Navy safety and acquisition regulations.

OCO:
FY21 OCO funding will procure the M72 Light Anti-Armor Weapon (LAAW), a 66mm anti-armor weapon frequently used by Naval Special Warfare (NSW) in conflict zones across the world. This funding replaces recent combat expenditures, and will also provide NSW with an upgraded version of the system that has reduced signatures (providing for increased gunner survivability and reduced TBI effects).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	279.984	38.214	27.057	34.284	0.000	34.284
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	279.984	38.214	27.057	34.284	0.000	34.284
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**279.984**	**38.214**	**27.057**	**34.284**	**0.000**	**34.284**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - 25MM - (AG100) CARTRIDGES Cost																		
Recurring Cost																		
1.1.1) CART., 25MM M APDS-T (A974)	94.02	45,000	4.231	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) CTG, 25MM, TP-T, M793 (A976)(†)	46.08	340,592	15.693	31.59	77,822	2.458	27.35	88,000	2.407	27.89	65,000	1.813	-	-	0.000	27.89	65,000	1.813
Subtotal: Recurring Cost	-	-	*19.924*	-	-	*2.458*	-	-	*2.407*	-	-	*1.813*	-	-	*0.000*	-	-	*1.813*
Subtotal: Hardware - 25MM - (AG100) CARTRIDGES Cost	**-**	**-**	***19.924***	**-**	**-**	***2.458***	**-**	**-**	***2.407***	**-**	**-**	***1.813***	**-**	**-**	***0.000***	**-**	**-**	***1.813***
Hardware - 30MM - (AG100) CARTRIDGES Cost																		
Recurring Cost																		
2.1.1) CART., 30MM APFSDS-T (AB51)(†) (1)	391.74	135,671	53.148	427.82	28,982	12.399	429.52	20,190	8.672	437.68	14,177	6.205	-	-	0.000	437.68	14,177	6.205
2.1.2) CART., 30MM TP-T LKD (AA90)(†)	56.86	166,907	9.491	-	-	0.000	33.50	15,000	0.503	-	-	0.000	-	-	0.000	-	-	0.000
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)(†)	131.83	290,442	38.289	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.4) Cart C-UAS, 30MM(†) (2)	-	-	0.000	-	-	0.000	-	-	0.000	1,000.00	3,000	3.000	-	-	0.000	1,000.00	3,000	3.000
Subtotal: Recurring Cost	-	-	*100.928*	-	-	*12.399*	-	-	*9.175*	-	-	*9.205*	-	-	*0.000*	-	-	*9.205*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - 30MM - (AG100) CARTRIDGES Cost	**-**	**-**	***100.928***	**-**	**-**	***12.399***	**-**	**-**	***9.175***	**-**	**-**	***9.205***	**-**	**-**	***0.000***	**-**	**-**	***9.205***
Hardware - 40MM - (AG100) CARTRIDGES Cost																		
Recurring Cost																		
3.1.1) CTG 40MM HEDP (B546)	43.82	81,106	3.554	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) CTG, 40MM, FIXED, PRAC., F/MK (B576)	15.36	1,363,866	20.945	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.3) CTG, 40MM, BLANK, SAL 200 GRAMS BRASS (B650)	43.88	27,918	1.225	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.4) CTG., 40MM M583A1 (B535)	44.18	31,460	1.390	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.5) CTG., 40MM, BLANK, SAL 50 GRAMS STEEL (B550)	55.87	6,300	0.352	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*27.466*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - 40MM - (AG100) CARTRIDGES Cost	**-**	**-**	***27.466***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - OTHER - (AG100) CARTRIDGES Cost																		
Recurring Cost																		
4.1.1) TRANSPORTATION ACCT CODE	-	-	3.244	-	-	0.388	-	-	0.311	-	-	0.346	-	-	0.000	-	-	0.346
4.1.2) PE/QA SMCA	-	-	2.137	-	-	0.296	-	-	0.568	-	-	0.578	-	-	0.000	-	-	0.578
Subtotal: Recurring Cost	-	-	*5.381*	-	-	*0.684*	-	-	*0.879*	-	-	*0.924*	-	-	*0.000*	-	-	*0.924*
Subtotal: Hardware - OTHER - (AG100) CARTRIDGES Cost	**-**	**-**	***5.381***	**-**	**-**	***0.684***	**-**	**-**	***0.879***	**-**	**-**	***0.924***	**-**	**-**	***0.000***	**-**	**-**	***0.924***
Hardware - (AG200) CARTRIDGES Cost																		
Recurring Cost																		
5.1.1) CART., 20MM DUMMY, M51A4N (AA20)(†)	11.83	304,090	3.596	26.64	22,746	0.606	-	-	0.000	15.58	20,000	0.312	-	-	0.000	15.58	20,000	0.312
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)	33.31	3,287,243	109.491	44.30	436,451	19.335	34.04	310,840	10.581	34.72	519,384	18.033	-	-	0.000	34.72	519,384	18.033

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Recurring Cost	-	-	*113.087*	-	-	*19.941*	-	-	*10.581*	-	-	*18.345*	-	-	*0.000*	-	-	*18.345*
Subtotal: Hardware - (AG200) CARTRIDGES Cost	**-**	**-**	***113.087***	**-**	**-**	***19.941***	**-**	**-**	***10.581***	**-**	**-**	***18.345***	**-**	**-**	***0.000***	**-**	**-**	***18.345***
Hardware - OTHER - (AG200) CARTRIDGES Cost																		
Recurring Cost																		
6.1.1) PE/QA SMCA-AG200	-	-	1.156	-	-	0.013	-	-	0.460	-	-	0.466	-	-	0.000	-	-	0.466
Subtotal: Recurring Cost	-	-	*1.156*	-	-	*0.013*	-	-	*0.460*	-	-	*0.466*	-	-	*0.000*	-	-	*0.466*
Subtotal: Hardware - OTHER - (AG200) CARTRIDGES Cost	**-**	**-**	***1.156***	**-**	**-**	***0.013***	**-**	**-**	***0.460***	**-**	**-**	***0.466***	**-**	**-**	***0.000***	**-**	**-**	***0.466***
Hardware - (AG894) GAUGE REQUIREMENTS Cost																		
Recurring Cost																		
7.1.1) GAUGE REQUIREMENTS	-	-	0.610	-	-	0.138	-	-	0.160	-	-	0.164	-	-	0.000	-	-	0.164
Subtotal: Recurring Cost	-	-	*0.610*	-	-	*0.138*	-	-	*0.160*	-	-	*0.164*	-	-	*0.000*	-	-	*0.164*
Subtotal: Hardware - (AG894) GAUGE REQUIREMENTS Cost	**-**	**-**	***0.610***	**-**	**-**	***0.138***	**-**	**-**	***0.160***	**-**	**-**	***0.164***	**-**	**-**	***0.000***	**-**	**-**	***0.164***
Hardware - Product Improvement Program (AG850) Cost																		
Recurring Cost																		
8.1.1) (AG850) Product Improvement Program (3)	-	-	0.000	-	-	0.000	-	-	1.039	-	-	1.000	-	-	0.000	-	-	1.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.039*	-	-	*1.000*	-	-	*0.000*	-	-	*1.000*
Subtotal: Hardware - Product Improvement Program (AG850) Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.039***	**-**	**-**	***1.000***	**-**	**-**	***0.000***	**-**	**-**	***1.000***
Support - (AG830) PRODUCTION ENGINEERING Cost																		
9.1) PRODUCTION ENGINEERING	-	-	11.432	-	-	2.581	-	-	2.356	-	-	2.367	-	-	0.000	-	-	2.367
Subtotal: Support - (AG830) PRODUCTION ENGINEERING Cost	**-**	**-**	***11.432***	**-**	**-**	***2.581***	**-**	**-**	***2.356***	**-**	**-**	***2.367***	**-**	**-**	***0.000***	**-**	**-**	***2.367***
Gross/Weapon System Cost	**-**	**-**	**279.984**	**-**	**-**	**38.214**	**-**	**-**	**27.057**	**-**	**-**	**34.284**	**-**	**-**	**0.000**	**-**	**-**	**34.284**

Remarks:

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

[Hardware] AG100/AG200: INTEGRATED WARFARE SYSTEMS - Provides all up rounds and acceptance testing. Unit costs and quantities are adjusted during year of execution. Provides for Transportation Account Code (TAC) first destination delivery of production items and Single Manager Conventional Ammunition (SMCA) related costs.

[Hardware] AG894: GAUGE REQUIREMENTS - Provides for procurement of gauges, auxiliary and test equipment, and support costs necessary for ammunition metrology to check critical dimensions/ parameters of ammunition items and their parts. This is to assure proper mating of parts and subassemblies, assure correct interfacing between the ammunition and guns, and proper ammunition performance

[Support Cost] AG830: PRODUCTION ENGINEERING - Provides for production engineering services to support new acquisition and in production ammunition.

(†) indicates the presence of a P-5a

Footnotes:

(1) CART., 30MM APFSDS-T (AB51) is procured to support the 30MM MK38 MOD4 machine gun system which is a Maritime accelerated acquisition program.

(2) Cart C-UAS 30mm to be procured to support the 30MM MK 38 MOD 4 machine gun system which is a Maritime accelerated acquisition program. Cartridge provides ammunition solution for unmanned aerial system defeat capability.

(3) FY2021 Product Improvement to support joint service counter unmanned aerial system cartridge qualification.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.2) CTG, 25MM, TP-T, M793 (A976)		2017 (4)	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Jul 2017	Aug 2019	90,914	31.74	Y		Oct 2015
1.1.2) CTG, 25MM, TP-T, M793 (A976)		2018	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Mar 2018	Jun 2019	115,998	27.64	Y		Oct 2015
1.1.2) CTG, 25MM, TP-T, M793 (A976)		2019	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Apr 2019	May 2020	77,822	31.59	Y		Oct 2017
1.1.2) CTG, 25MM, TP-T, M793 (A976)		2020	TBD / TBD	C / FFP	JMC ROCK ISLAND	Mar 2020	Mar 2021	88,000	27.35	Y		Oct 2017
1.1.2) CTG, 25MM, TP-T, M793 (A976)		2021	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Oct 2020	Nov 2021	65,000	27.89	Y		Oct 2017
2.1.1) CART., 30MM APFSDS-T (AB51)(†)		2017	GENERAL DYNAMICS OTS / MARION, IL.	C / FFP	ACC-NJ	Nov 2017	Jan 2020	51,993	365.58	Y		Jun 2015
2.1.1) CART., 30MM APFSDS-T (AB51)(†)		2018	GENERAL DYNAMICS OTS / MARION, IL.	C / FFP	ACC-NJ	Jun 2018	Dec 2020	23,882	413.65	Y		Jun 2015
2.1.1) CART., 30MM APFSDS-T (AB51)(†)		2019 (5)	GENERAL DYNAMICS OTS / MARION, IL.	C / FFP	ACC-NJ	Feb 2020	Aug 2021	28,982	427.82	Y		Jun 2015
2.1.1) CART., 30MM APFSDS-T (AB51)(†)		2020	GENERAL DYNAMICS OTS / MARION, IL.	C / FFP	ACC-NJ	Mar 2020	Dec 2021	20,190	429.52	Y		Jun 2015
2.1.1) CART., 30MM APFSDS-T (AB51)(†)		2021	GENERAL DYNAMICS OTS / MARION, IL.	C / FFP	ACC-NJ	Mar 2021	Dec 2022	14,177	437.68	Y		Jun 2015
2.1.2) CART., 30MM TP-T LKD (AA90)		2018	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Mar 2018	Mar 2020	17,055	84.92	Y		Oct 2017
2.1.2) CART., 30MM TP-T LKD (AA90)		2020	TBD / TBD	C / FFP	JMC ROCK ISLAND	Sep 2020	Nov 2021	15,000	33.50	Y		Oct 2019
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)(†)		2015	NGIS / RADFORD, VA	C / FFP	JMC ROCK ISLAND	Jul 2015	Aug 2019	36,510	146.78	Y		Jul 2012
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)(†)		2016	NGIS / RADFORD, VA	C / FFP	JMC ROCK ISLAND	Sep 2017	Sep 2019	82,020	159.76	Y		Jul 2012
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)(†)		2017	NGIS / RADFORD, VA	C / FFP	JMC ROCK ISLAND	Sep 2017	Feb 2020	21,284	135.81	Y		Jul 2016
2.1.4) Cart C-UAS, 30MM		2021	TBD / TBD	C / FFP	TBD	Mar 2021	Sep 2022	3,000	1,000.00	N	Oct 2020	Dec 2020
5.1.1) CART., 20MM DUMMY, M51A4N (AA20)		2018	RTI TECHNOLOGIES / COLUMBIA, CT.	C / FFP	NSWC IHD	Jul 2019	Jul 2021	20,800	14.66	Y		Nov 2018
5.1.1) CART., 20MM DUMMY, M51A4N (AA20)		2019	RTI TECHNOLOGIES / COLUMBIA, CT.	C / FFP	NSWC IHD	Jul 2019	Feb 2022	22,746	26.64	Y		Nov 2018
5.1.1) CART., 20MM DUMMY, M51A4N (AA20)		2021	RTI TECHNOLOGIES / COLUMBIA, CT.	C / FFP	NSWC IHD	Mar 2021	Sep 2023	20,000	15.58	Y		Nov 2018

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2016 (6)	GD-OTS AND NGIS / MARION, IL AND LAKE CITY, MO	C / FFP	JMC ROCK ISLAND	Jul 2016	Jan 2018	476,155	32.63	Y		Dec 2012
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2017	GD-OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	Sep 2017	Jul 2018	478,850	30.84	Y		Dec 2012
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2018	GD-OTS AND NGIS / MARION, IL AND LAKE CITY, MO	C / FFP	JMC ROCK ISLAND	May 2019	Feb 2021	450,000	40.48	Y		Oct 2017
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2019	GD-OTS / MARION, IL	C / FFP	JMC ROCK ISLAND	May 2019	Aug 2021	436,451	44.30	Y		Oct 2017
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2020	GD-OTS AND NGIS / MARION, IL AND LAKE CITY, MO	C / FFP	JMC ROCK ISLAND	May 2020	Aug 2022	310,840	34.04	Y		Oct 2017
5.1.2) CART., 20MM MK 244 ELC (AA61)(†)		2021	GD-OTS AND NGIS / MARION, IL AND LAKE CITY, MO	C / FFP	JMC ROCK ISLAND	May 2021	Aug 2023	519,384	34.72	Y		Oct 2017

(†) indicates the presence of a P-21

Footnotes:

(4) Delivery schedule is set by the US Army Single Manager for Conventional Ammunition (SMCA). Date of first delivery on SMCA family buys can vary, depending on other customer's orders.

(5) Contract award was delayed due to failures during lot acceptance testing on previous orders. Delaying the contract award ensures that the vendor has resolved production challenges prior to receiving additional orders. The vendor has successfully passed lot acceptance testing and award is planned February 2020.

(6) FY16 ORDER IS A DUAL AWARD TO BOTH GD-OTS, MARION, IL AND ORBITAL ATK, LAKE CITY, MO.

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Thousands)							Fiscal Year 2015												Fiscal Year 2016												BALANCE
							Calendar Year 2015												Calendar Year 2016												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) CART., 30MM APFSDS-T (AB51) (1)																															
Prior Years Deliveries: 59796																															
	1	2017	NAVY	51.993	.000	51.993																									51.993
	1	2018	NAVY	23.882	.000	23.882																									23.882
	1	2019	NAVY	28.982	.000	28.982																									28.982
	1	2020	NAVY	20.190	.000	20.190																									20.190
	1	2021	NAVY	14.177	.000	14.177																									14.177
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)																															
Prior Years Deliveries: 150628																															
	2	2015	NAVY	36.510	.000	36.510										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.510
	2	2016	NAVY	82.020	.000	82.020																									82.020
	2	2017	NAVY	21.284	.000	21.284																									21.284
5.1.2) CART., 20MM MK 244 ELC (AA61)																															
Prior Years Deliveries: 1882238																															
	4	2016	NAVY	476.155	.000	476.155																						A -	-	-	476.155
	3	2017	NAVY	478.850	.000	478.850																									478.850
	4	2018	NAVY	450.000	.000	450.000																									450.000
	3	2019	NAVY	436.451	.000	436.451																									436.451
	4	2020	NAVY	310.840	.000	310.840																									310.840
	4	2021	NAVY	519.384	.000	519.384																									519.384
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Thousands)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
							Calendar Year 2017												Calendar Year 2018												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) CART., 30MM APFSDS-T (AB51) (1)																															
Prior Years Deliveries: 59796																															
	1	2017	NAVY	51.993	.000	51.993														A -	-	-	-	-	-	-	-	-	-		51.993
	1	2018	NAVY	23.882	.000	23.882																					A -	-	-	-	23.882
	1	2019	NAVY	28.982	.000	28.982																									28.982
	1	2020	NAVY	20.190	.000	20.190																									20.190
	1	2021	NAVY	14.177	.000	14.177																									14.177
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)																															
Prior Years Deliveries: 150628																															
	2	2015	NAVY	36.510	.000	36.510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.510
	2	2016	NAVY	82.020	.000	82.020												A -	-	-	-	-	-	-	-	-	-	-	-	-	82.020
	2	2017	NAVY	21.284	.000	21.284												A -	-	-	-	-	-	-	-	-	-	-	-	-	21.284
5.1.2) CART., 20MM MK 244 ELC (AA61)																															
Prior Years Deliveries: 1882238																															
	4	2016	NAVY	476.155	.000	476.155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200.000	200.000	76.155							.000
	3	2017	NAVY	478.850	.000	478.850												A -	-	-	-	-	-	-	-	-	-	250.400	228.450		.000
	4	2018	NAVY	450.000	.000	450.000																									450.000
	3	2019	NAVY	436.451	.000	436.451																									436.451
	4	2020	NAVY	310.840	.000	310.840																									310.840
	4	2021	NAVY	519.384	.000	519.384																									519.384
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition

Item Number / Title [DODIC]: 1 / Integrated Warfare Systems

Cost Elements (Units in Thousands)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019															Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) CART., 30MM APFSDS-T (AB51) (1)																															
Prior Years Deliveries: 59796																															
	1	2017	NAVY	51.993	.000	51.993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.000	10.000	10.000	10.000	11.993					.000
	1	2018	NAVY	23.882	.000	23.882	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.882
	1	2019	NAVY	28.982	.000	28.982																	A -	-	-	-	-	-	-	-	28.982
	1	2020	NAVY	20.190	.000	20.190																		A -	-	-	-	-	-	-	20.190
	1	2021	NAVY	14.177	.000	14.177																									14.177
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)																															
Prior Years Deliveries: 150628																															
	2	2015	NAVY	36.510	.000	36.510	-	-	-	-	-	-	-	-	-	-	36.510														.000
	2	2016	NAVY	82.020	.000	82.020	-	-	-	-	-	-	-	-	-	-	-	41.000	41.020												.000
	2	2017	NAVY	21.284	.000	21.284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.000	11.284							.000
5.1.2) CART., 20MM MK 244 ELC (AA61)																															
Prior Years Deliveries: 1882238																															
	4	2016	NAVY	476.155	476.155	.000																									.000
	3	2017	NAVY	478.850	478.850	.000																									.000
	4	2018	NAVY	450.000	.000	450.000								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450.000
	3	2019	NAVY	436.451	.000	436.451								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436.451
	4	2020	NAVY	310.840	.000	310.840																				A -	-	-	-	-	310.840
	4	2021	NAVY	519.384	.000	519.384																									519.384
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Thousands)							Fiscal Year 2021													Fiscal Year 2022													BALANCE
							Calendar Year 2021																Calendar Year 2022										
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
2.1.1) CART., 30MM APFSDS-T (AB51) (1)																																	
Prior Years Deliveries: 59796																																	
	1	2017	NAVY	51.993	51.993	.000																											.000
	1	2018	NAVY	23.882	.000	23.882	-	-	10.000	10.000	3.882																						.000
	1	2019	NAVY	28.982	.000	28.982	-	-	-	-	-	-	-	-	-	-	8.982	10.000	10.000														.000
	1	2020	NAVY	20.190	.000	20.190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.000	10.190											.000
	1	2021	NAVY	14.177	.000	14.177						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		14.177
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)																																	
Prior Years Deliveries: 150628																																	
	2	2015	NAVY	36.510	36.510	.000																											.000
	2	2016	NAVY	82.020	82.020	.000																											.000
	2	2017	NAVY	21.284	21.284	.000																											.000
5.1.2) CART., 20MM MK 244 ELC (AA61)																																	
Prior Years Deliveries: 1882238																																	
	4	2016	NAVY	476.155	476.155	.000																											.000
	3	2017	NAVY	478.850	478.850	.000																											.000
	4	2018	NAVY	450.000	.000	450.000	-	-	-	-	200.000	200.000	50.000																				.000
	3	2019	NAVY	436.451	.000	436.451	-	-	-	-	-	-	-	-	-	-	100.000	100.000	100.000	100.000	36.451												.000
	4	2020	NAVY	310.840	.000	310.840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.000	100.000			110.840
	4	2021	NAVY	519.384	.000	519.384								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			519.384
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1 | **P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition | **Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) CART., 30MM APFSDS-T (AB51) (1)																															
Prior Years Deliveries: 59796																															
	1	2017	NAVY	51.993	51.993	.000																									.000
	1	2018	NAVY	23.882	23.882	.000																									.000
	1	2019	NAVY	28.982	28.982	.000																									.000
	1	2020	NAVY	20.190	20.190	.000																									.000
	1	2021	NAVY	14.177	.000	14.177	-	-	5.200	5.000	3.977																				.000
2.1.3) CARTRIDGE, 30MM X 173, LINKED (AB44)																															
Prior Years Deliveries: 150628																															
	2	2015	NAVY	36.510	36.510	.000																									.000
	2	2016	NAVY	82.020	82.020	.000																									.000
	2	2017	NAVY	21.284	21.284	.000																									.000
5.1.2) CART., 20MM MK 244 ELC (AA61)																															
Prior Years Deliveries: 1882238																															
	4	2016	NAVY	476.155	476.155	.000																									.000
	3	2017	NAVY	478.850	478.850	.000																									.000
	4	2018	NAVY	450.000	450.000	.000																									.000
	3	2019	NAVY	436.451	436.451	.000																									.000
	4	2020	NAVY	310.840	200.000	110.840	110.840																								.000
	4	2021	NAVY	519.384	.000	519.384	-	-	-	-	-	-	-	-	-	-	125.432	100.000	100.000	100.000	93.952										.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GENERAL DYNAMICS OTS - MARION, IL.	70	840,000	1,700,000	6	6	14	20	6	10	9	19
2	NGIS - RADFORD, VA	70	840,000	1,700,000	10	10	23	33	10	10	7	17
3	GD-OTS - MARION, IL	70	840,000	1,700,000	6	6	10	16	6	6	5	11
4	GD-OTS AND NGIS - MARION, IL AND LAKE CITY, MO	70	840,000	1,700,000	6	6	12	18	6	6	16	22

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10,037.213	6.466	9.271	6.342	2.611	8.953
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10,037.213	6.466	9.271	6.342	2.611	8.953
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10,037.213**	**6.466**	**9.271**	**6.342**	**2.611**	**8.953**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - AGNSW PE/QA SMCA Cost																		
Recurring Cost																		
1.1.1) AGNSW PE/QA SMCA	-	-	1.825	-	-	0.120	-	-	0.732	-	-	0.362	-	-	0.007	-	-	0.369
Subtotal: Recurring Cost	-	-	*1.825*	-	-	*0.120*	-	-	*0.732*	-	-	*0.362*	-	-	*0.007*	-	-	*0.369*
Subtotal: Hardware - AGNSW PE/QA SMCA Cost	**-**	**-**	***1.825***	**-**	**-**	***0.120***	**-**	**-**	***0.732***	**-**	**-**	***0.362***	**-**	**-**	***0.007***	**-**	**-**	***0.369***
Hardware - NSW Hardware Cost																		
Recurring Cost																		
2.1.1) CTG, 60MM, FULL RANGE PRACTICE, M769 (BA15)(†)	208.27	5,008	1.043	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.2) C868 81MM HE M821A2(†)	857.24	2,956	2.534	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.3) C869 81MM HE M889A1(†)	391.93	768	0.301	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.4) CTG., 40MM PRACTICE M781 f/ M203 Gren Launcher (B519)(†)	4.40	157,533	0.693	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.5) CTG 40MM PRACTICE M395A1 (B576)(†)	17.16	136,152	2.337	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 2 / Naval Special Warfare
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.6) CTG., 40MM PRACTICE, DAY/ NIGHT MARKER MK281 (BA21)(†)	34.05	57,269	1.950	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)(†)	442.74	11,709	5.184	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.8) CTG, MORTAR 81MM HE M821A2 SERIES,(CA61)	-	-	9,999.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.9) CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE (CA63) (7)	-	-	0.000	623.68	1,443	0.900	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26)(†) (8)	-	-	0.000	-	-	0.000	-	-	0.000	9,009.30	580	5.225	9,009.30	289	2.604	9,009.30	869	7.829
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)(†)	-	-	0.000	-	-	0.000	3,600.00	2,287	8.233	-	-	0.000	-	-	0.000	-	-	0.000
2.1.12) CTG 81MM ILLUM M853A1 W/ FUZE TIME (C871)(†)	426.80	485	0.207	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.13) CTG, 60MM HE MAPAM M1081 W/FUZE M734A1 (BA42)(†)	-	-	0.000	1,011.80	2,175	2.201	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.14) JAVELIN BLOCK 1 FGM148F (PMC1)(†)	163,834.71	121	19.824	172,000.00	12	2.064	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.15) JAVELIN COMPONENTS (TB06) (9)	-	-	0.281	-	-	0.496	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.16) GUIDED MISSILE JAVELIN LIGHT WEIGHT (LCLU)(†)	-	-	0.000	-	-	0.000	-	-	0.000	418,000.00	1	0.418	-	-	0.000	418,000.00	1	0.418
2.1.18) 81MM FRPC M879A1 (C875)(†)	-	-	0.000	217.56	1,287	0.280	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*10,033.354*	-	-	*5.941*	-	-	*8.233*	-	-	*5.643*	-	-	*2.604*	-	-	*8.247*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 2 / Naval Special Warfare
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - NSW Hardware Cost	-	-	***10,033.354***	-	-	***5.941***	-	-	***8.233***	-	-	***5.643***	-	-	***2.604***	-	-	***8.247***
Hardware - AGNSW TRANSPORTATION CODE Cost																		
Recurring Cost																		
3.1.1) AGNSW TAC CODE	-	-	0.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.500*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AGNSW TRANSPORTATION CODE Cost	-	-	***0.500***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***
Support - (NS830) PRODUCTION ENGINEERING Cost																		
4.1) Production Engineering	-	-	1.534	-	-	0.405	-	-	0.306	-	-	0.337	-	-	0.000	-	-	0.337
Subtotal: Support - (NS830) PRODUCTION ENGINEERING Cost	-	-	***1.534***	-	-	***0.405***	-	-	***0.306***	-	-	***0.337***	-	-	***0.000***	-	-	***0.337***
Gross/Weapon System Cost	-	-	**10,037.213**	-	-	**6.466**	-	-	**9.271**	-	-	**6.342**	-	-	**2.611**	-	-	**8.953**

Remarks:
[Support Cost] AG830: PRODUCTION ENGINEERING - Provides for production engineering services.

(†) indicates the presence of a P-5a

Footnotes:
(7) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys. The unit cost will fluctuate depending on the total procurement.
(8) Naval Special Warfare (NSW) procure 66MM munitions stand off weapon rounds for the M72 Light Anti-armor Weapon.
(9) Provides for required reset components including command launch units, battery coolant units and renovation components used to upgrade unserviceable rounds into ready-for-issue condition.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 2 / Naval Special Warfare

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.1) CTG, 60MM, FULL RANGE PRACTICE, M769 (BA15)		2017	DAY & ZIMMERMANN LONE STAR / CAMDEM, AR	C / CPFF	CAMDEN, AR	Dec 2018	Jun 2020	5,008	208.27	N	Jun 2020	Dec 2018
2.1.2) C868 81MM HE M821A2		2017	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Sep 2017	Sep 2017	1,957	818.43	N	Sep 2017	Sep 2017
2.1.2) C868 81MM HE M821A2		2018	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Jan 2018	Jan 2018	999	933.00	N	Jan 2018	Jan 2018
2.1.3) C869 81MM HE M889A1		2017	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Sep 2017	Sep 2017	768	391.93	N	Sep 2017	Sep 2017
2.1.4) CTG., 40MM PRACTICE M781 f/M203 Gren Launcher (B519)		2016	AMTEC CORPORATION / JANESVILE, WI	C / FFP	JMC ROCK ISLAND	Mar 2016	Jul 2018	60,000	4.78	Y		Oct 2015
2.1.4) CTG., 40MM PRACTICE M781 f/M203 Gren Launcher (B519)		2018	AMTEC CORPORATION / JANESVILE, WI	C / CPFF	JMC ROCK ISLAND	Mar 2018	Jan 2019	12,533	4.65	Y		Dec 2017
2.1.5) CTG 40MM PRACTICE M395A1 (B576)		2016	AMTEC CORPORATION / JANESVILE, WI	C / FFP	JMC ROCK ISLAND	Mar 2016	Aug 2017	40,000	19.15	Y		Dec 2015
2.1.5) CTG 40MM PRACTICE M395A1 (B576)		2018	AMTEC CORPORATION / JANESVILE, WI	C / FFP	JMC ROCK ISLAND	Apr 2018	Sep 2019	17,316	19.51	N	Dec 2020	Apr 2018
2.1.6) CTG., 40MM PRACTICE, DAY/NIGHT MARKER MK281 (BA21)(†)		2016	RHEINMETALL / GERMANY	C / FFP	USMC Quantico	Apr 2016	Oct 2017	57,269	34.05	Y		Dec 2014
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)(†)		2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2017	1,152	442.76	Y		Dec 2014
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)(†)	✓	2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2017	10,557	442.76	Y		Dec 2014
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26)(†)		2021	NAMMO Talley Defense Systems / Mesa, AZ	C / TBD	Mesa,Az	Dec 2021	Jun 2023	580	9,009.30	N	Jun 2023	Dec 2021
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26)(†)	✓	2021	NAMMO Talley Defense Systems / Mesa, AZ	C / TBD	Mesa,Az	Dec 2021	Jun 2023	289	9,009.30	N	Jun 2023	Dec 2021
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)(†)	✓	2020	NAMMO Talley Defense Systems / Mesa, AZ	C / TBD	Mesa,Az	Dec 2019	Dec 2022	2,287	3,600.00	N	Dec 2019	Dec 2019
2.1.12) CTG 81MM ILLUM M853A1 W/FUZE TIME (C871)		2018	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2018	Feb 2018	485	426.80	N	Feb 2018	Feb 2018
2.1.13) CTG, 60MM HE MAPAM M1081 W/FUZE M734A1 (BA42)		2019	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Jan 2019	Jan 2019	2,175	1,011.80	N	Jan 2019	Jan 2019
2.1.14) JAVELIN BLOCK 1 FGM148F (PMC1)		2017	RAYTHEON/LOCKHEED MARTIN JAVELIN JOINT VENTURE / TUCSON, AZ	C / FFP	REDSTONE	Oct 2017	Apr 2020	13	145,000.00	Y		Jul 2017

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0270 / Other Ship Gun Ammunition	Item Number / Title [DODIC]: 2 / Naval Special Warfare

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.14) JAVELIN BLOCK 1 FGM148F (PMC1)		2018	RAYTHEON/LOCKHEED MARTIN JAVELIN JOINT VENTURE / TUCSON, AZ	C / FFP	REDSTONE	Jul 2018	Jan 2021	8	166,104.00	Y		Jan 2018
2.1.14) JAVELIN BLOCK 1 FGM148F (PMC1)	✓	2018	RAYTHEON/LOCKHEED MARTIN JAVELIN JOINT VENTURE / TUCSON, AZ	C / FFP	REDSTONE	Jun 2018	Dec 2020	100	166,104.00	Y		Jan 2018
2.1.14) JAVELIN BLOCK 1 FGM148F (PMC1)	✓	2019	RAYTHEON/LOCKHEED MARTIN JAVELIN JOINT VENTURE / TUCSON, AZ	C / FFP	REDSTONE	Jun 2019	Dec 2021	12	172,000.00	Y		Jan 2019
2.1.16) GUIDED MISSILE JAVELIN LIGHT WEIGHT (LCLU)		2021	RAYTHEON/LOCKHEED MARTIN JAVELIN JOINT VENTURE / TUCSON, AZ	C / TBD	RED STONE2	Feb 2021	Aug 2023	1	418,000.00	N	Aug 2023	Feb 2021
2.1.18) 81MM FRPC M879A1 (C875)		2019	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Jan 2019	Jan 2019	1,287	217.56	N	Jan 2019	Jan 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

Cost Elements (Units in Thousands)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.6) CTG., 40MM PRACTICE, DAY/NIGHT MARKER MK281 (BA21)																															
	1	2016	NAVY	57.269	.000	57.269							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.269
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)																															
	2	2016	NAVY	1.152	.000	1.152						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.152
✓	2	2016	NAVY	10.557	.000	10.557						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.557
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26) [8]																															
	3	2021	NAVY	.580	.000	.580																									.580
✓	3	2021	NAVY	.289	.000	.289																									.289
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)																															
✓	4	2020	NAVY	2.287	.000	2.287																									2.287
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.6) CTG., 40MM PRACTICE, DAY/NIGHT MARKER MK281 (BA21)																															
	1	2016	NAVY	57.269	.000	57.269	57.269																								.000
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)																															
	2	2016	NAVY	1.152	.000	1.152	1.152																								.000
✓	2	2016	NAVY	10.557	.000	10.557	10.557																								.000
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26) [8]																															
	3	2021	NAVY	.580	.000	.580																									.580
✓	3	2021	NAVY	.289	.000	.289																									.289
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)																															
✓	4	2020	NAVY	2.287	.000	2.287																									2.287
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.6) CTG., 40MM PRACTICE, DAY/NIGHT MARKER MK281 (BA21)																															
	1	2016	NAVY	57.269	57.269	.000																									.000
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)																															
	2	2016	NAVY	1.152	1.152	.000																									.000
✓	2	2016	NAVY	10.557	10.557	.000																									.000
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26) [8]																															
	3	2021	NAVY	.580	.000	.580																									.580
✓	3	2021	NAVY	.289	.000	.289																									.289
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)																															
✓	4	2020	NAVY	2.287	.000	2.287			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.287
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.6) CTG., 40MM PRACTICE, DAY/NIGHT MARKER MK281 (BA21)																															
	1	2016	NAVY	57.269	57.269	.000																									.000
2.1.7) CTG, 60 MM HE-PD M88 M935 (B643)																															
	2	2016	NAVY	1.152	1.152	.000																									.000
✓	2	2016	NAVY	10.557	10.557	.000																									.000
2.1.10) ROCKET, 66MM, M72A8 LAW, FFE (HB26) [8]																															
	3	2021	NAVY	.580	.000	.580			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.580				.000
✓	3	2021	NAVY	.289	.000	.289			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.289				.000
2.1.11) ROCKET, 66MM, ANTI-STRUCTURE M72A10 LAW FFE, (HB25)																															
✓	4	2020	NAVY	2.287	.000	2.287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.287										.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0270 / Other Ship Gun Ammunition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	RHEINMETALL - GERMANY	80	70,000	1,640,000	6	6	18	24	6	6	18	24
2	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA			TBD	6	6	19	25	6	6	7	13
3	NAMMO Talley Defense Systems - Mesa, AZ			TBD	0	0	18	18	0	0	0	0
4	NAMMO Talley Defense Systems - Mesa, AZ			TBD	0	0	18	18	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo

ID Code (A=Service Ready, B=Not Service Ready): B | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	456.834	43.888	48.906	48.202	1.624	49.826	48.871	49.856	50.802	51.665	-	800.648
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	456.834	43.888	48.906	48.202	1.624	49.826	48.871	49.856	50.802	51.665	-	800.648
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**456.834**	**43.888**	**48.906**	**48.202**	**1.624**	**49.826**	**48.871**	**49.856**	**50.802**	**51.665**	**-**	**800.648**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Program procures ammunition in support of Navy ships and for active and reserve ashore warfare forces. Small Arms (22 -.50 Cal) ammunition and Landing Party ammunition includes hand grenades, riot control agents and defensive land mines for the Military Sea Lift Command, Naval Criminal Investigate Service (NCIS), Marine and Navy Air-wings, Maritime Force Protection Command, and Naval Expeditionary Combat Command.

Additionally, the Naval Special Warfare (NSW) small arms ammunition program includes 5.56mm, 7.62mm, and .50 caliber rounds required for the organic weapon systems carried by US Navy SEALs, while the various hand grenades and mines are employed for force protection, break contact maneuvers, ambushes, and target assaults.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Navy	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	43.479	48.446	47.732	1.624	49.356	48.393	49.369	50.306	51.159
NR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.409	0.460	0.470	-	0.470	0.478	0.487	0.496	0.506
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**43.888**	**48.906**	**48.202**	**1.624**	**49.826**	**48.871**	**49.856**	**50.802**	**51.665**

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / Integrated Warfare Systems	P-5a, P-21			- / 314.010	- / 24.770	- / 28.351	- / 28.484	- / 0.000	- / 28.484
P-5	2 / Naval Special Warfare (NSW)	P-5a, P-21			- / 142.824	- / 19.118	- / 20.555	- / 19.718	- / 1.624	- / 21.342
P-40	**Total Gross/Weapon System Cost**				**- / 456.834**	**- / 43.888**	**- / 48.906**	**- / 48.202**	**- / 1.624**	**- / 49.826**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding procures ammunition to support shotguns, handguns, rifles, machine guns, grenades and land mines. 12 Gauge, 5.56MM, 7.62MM, 9MM, 38 Caliber, 40 Caliber, 45 Caliber, 50 Caliber, Hand and Smoke Grenades, and Mines are used for all Active Navy Ships and all Active and Reserve Ashore warfare forces, including Navy Expeditionary Combat Command, Maritime Expeditionary Security Forces, Inshore Undersea Warfare Groups, Military Sea Lift Command, Marine and Navy Air-Wing units, and Naval Criminal Investigative Service. Baseline funding also provides production Engineering and Gauge requirements for Small Arms Ammunition, Grenades, and Mines.

FY 2021 funding also procures Naval Special Warfare (NSW) ammunition to support shotguns, handguns, rifles, machine guns, grenades and land mines tactically employed by US Navy SEALs, Special Boat Teams, NSW Task Units/Groups and other NSW support groups. Procurement in FY 2021 includes 12 Gauge, 5.56MM, 7.62MM, 9MM, 45 Caliber, 50 Caliber, Hand and Smoke Grenades,and Mines. Baseline program funds are also necessary for production engineering as required by DoD and Navy safety and acquisition regulations.

OCO:
FY 2021 OCO funding will procure 7.62x51mm and .50 caliber ammunition for Naval Special Warfare: these two calibers are the ammunition for all Naval Special Warfare crew-served automatic weapons and are in constant demand in conflict zones across the world, and within the Small Arms and Landing Party (SALP)ammunition inventory they are the calibers that consistently run short. This funding will replace combat expenditures and allow Naval Special Warfare to bring the War Reserve inventory to the required level.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	314.010	24.770	28.351	28.484	0.000	28.484
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	314.010	24.770	28.351	28.484	0.000	28.484
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**314.010**	**24.770**	**28.351**	**28.484**	**0.000**	**28.484**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - (AH100) PE/QA SMCA Cost																		
Recurring Cost																		
1.1.1) PE/QA SMCA	-	-	11.340	-	-	1.797	-	-	1.463	-	-	1.504	-	-	0.000	-	-	1.504
Subtotal: Recurring Cost	-	-	*11.340*	-	-	*1.797*	-	-	*1.463*	-	-	*1.504*	-	-	*0.000*	-	-	*1.504*
Subtotal: Hardware - (AH100) PE/QA SMCA Cost	**-**	**-**	***11.340***	**-**	**-**	***1.797***	**-**	**-**	***1.463***	**-**	**-**	***1.504***	**-**	**-**	***0.000***	**-**	**-**	***1.504***
Hardware - (AH100) TRANSPORTATION ACCOUNT CODE (TAC) Cost																		
Recurring Cost																		
2.1.1) TRANSPORTATION ACCOUNT CODE (TAC)	-	-	7.911	-	-	1.400	-	-	1.446	-	-	1.502	-	-	0.000	-	-	1.502
Subtotal: Recurring Cost	-	-	*7.911*	-	-	*1.400*	-	-	*1.446*	-	-	*1.502*	-	-	*0.000*	-	-	*1.502*
Subtotal: Hardware - (AH100) TRANSPORTATION ACCOUNT CODE (TAC) Cost	**-**	**-**	***7.911***	**-**	**-**	***1.400***	**-**	**-**	***1.446***	**-**	**-**	***1.502***	**-**	**-**	***0.000***	**-**	**-**	***1.502***
Hardware - (AH100) .40 CAL CARTRIDGES Cost																		
Recurring Cost																		
3.1.1) CARTRIDGE, MK 308 MOD 0, .40 (DWGW)(†)	0.29	2,374,200	0.699	-	-	0.000	0.34	250,000	0.085	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) CARTRIDGE .40 CALS&W (DWGX)(†)	0.29	774,463	0.222	-	-	0.000	0.31	200,000	0.062	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.1.3) CARTRIDGE, .40 CALIBER, S&W FRANGIBLE, MK 326 MOD 0 (CWRD)	0.42	785,129	0.329	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*1.250*	-	-	*0.000*	-	-	*0.147*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH100) .40 CAL CARTRIDGES Cost	**-**	**-**	***1.250***	**-**	**-**	***0.000***	**-**	**-**	***0.147***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH100) 50 CAL CARTRIDGES Cost																		
Recurring Cost																		
4.1.1) .50 CAL BLANK (A598)	1.37	1,921,958	2.634	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.2) CTG, .50 LINKED (A576)(†) (1)	2.20	7,303,716	16.040	1.98	550,500	1.090	2.04	350,000	0.714	2.10	400,000	0.840	-	-	0.000	2.10	400,000	0.840
4.1.3) CTG, 50 CAL, MK 211, APIT, M (AA06)	-	-	5.985	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.4) CTG, 50 CAL, LKD, BALL (A555)(†) (2)	1.87	14,240,986	26.597	1.77	805,000	1.425	1.82	1,384,600	2.520	1.88	1,434,600	2.697	-	-	0.000	1.88	1,434,600	2.697
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†) (3)	1.81	39,029,890	70.755	1.83	2,836,500	5.191	1.88	4,871,200	9.158	1.94	3,449,500	6.692	-	-	0.000	1.94	3,449,500	6.692
4.1.6) CTG, 50 CAL REDUCED RANGE, LKD BALL (AB65)(†)	-	-	0.000	-	-	0.000	-	-	0.000	4.16	150,000	0.624	-	-	0.000	4.16	150,000	0.624
Subtotal: Recurring Cost	-	-	*122.011*	-	-	*7.706*	-	-	*12.392*	-	-	*10.853*	-	-	*0.000*	-	-	*10.853*
Subtotal: Hardware - (AH100) 50 CAL CARTRIDGES Cost	**-**	**-**	***122.011***	**-**	**-**	***7.706***	**-**	**-**	***12.392***	**-**	**-**	***10.853***	**-**	**-**	***0.000***	**-**	**-**	***10.853***
Hardware - (AH100) 5.56MM CARTRIDGES Cost																		
Recurring Cost																		
5.1.1) CTG, CAL 5.56MM, FRANGIBLE (AA40)	0.43	33,827,694	14.587	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.2) CTG, 5.56MM M855 (A059)(†)	0.24	82,076,505	19.838	0.24	6,000,000	1.440	0.25	4,944,000	1.236	-	-	0.000	-	-	0.000	-	-	0.000
5.1.3) CTG., 5.56MM, BLANK (A080)	0.24	9,069,440	2.176	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.1.4) CTG, 5.56MM, SRTR AMMO (AA68)	0.43	1,020,785	0.439	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.5) CTG., 5.56MM, BALL, M855A1 EPR (AB57)(†) (4)	-	-	0.000	-	-	0.000	-	-	0.000	0.28	5,000,000	1.400	-	-	0.000	0.28	5,000,000	1.400
5.1.6) CTG, 5.56MM, SRTR AMMO (AB67)(†)	1.11	624,600	0.695	1.36	300,000	0.408	1.39	360,000	0.500	1.41	360,000	0.508	-	-	0.000	1.41	360,000	0.508
Subtotal: Recurring Cost	-	-	*37.735*	-	-	*1.848*	-	-	*1.736*	-	-	*1.908*	-	-	*0.000*	-	-	*1.908*
Subtotal: Hardware - (AH100) 5.56MM CARTRIDGES Cost	**-**	**-**	***37.735***	**-**	**-**	***1.848***	**-**	**-**	***1.736***	**-**	**-**	***1.908***	**-**	**-**	***0.000***	**-**	**-**	***1.908***
Hardware - (AH100) 7.62MM CARTRIDGES Cost																		
Recurring Cost																		
6.1.1) CTG. 7.62MM (A257)(†)	0.49	3,225,000	1.581	0.48	350,000	0.168	0.49	350,000	0.172	0.51	350,000	0.179	-	-	0.000	0.51	350,000	0.179
6.1.2) CARTR, 7.62MM (AA11)	1.05	1,729,780	1.809	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.3) CTG, 7.62MM, SRTA, BALL, LINKED M973 (AB60)(†)	1.85	1,428,226	2.638	1.86	200,000	0.372	1.90	200,000	0.380	1.94	200,000	0.388	-	-	0.000	1.94	200,000	0.388
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)(†)	0.76	48,464,429	37.040	0.54	6,000,000	3.240	0.56	5,500,000	3.080	0.57	5,025,000	2.864	-	-	0.000	0.57	5,025,000	2.864
6.1.5) CTG, 7.62MM, BALL, M80, LKD (A143)(†)	0.61	10,855,054	6.586	0.52	850,000	0.442	0.54	900,000	0.486	0.55	850,000	0.468	-	-	0.000	0.55	850,000	0.468
6.1.6) CTG, 7.62MM, LKD (A165)(†)	0.60	36,247,202	21.809	0.48	2,000,000	0.960	0.49	2,000,000	0.980	0.51	3,000,000	1.530	-	-	0.000	0.51	3,000,000	1.530
Subtotal: Recurring Cost	-	-	*71.463*	-	-	*5.182*	-	-	*5.098*	-	-	*5.429*	-	-	*0.000*	-	-	*5.429*
Subtotal: Hardware - (AH100) 7.62MM CARTRIDGES Cost	**-**	**-**	***71.463***	**-**	**-**	***5.182***	**-**	**-**	***5.098***	**-**	**-**	***5.429***	**-**	**-**	***0.000***	**-**	**-**	***5.429***
Hardware - (AH100) 38CAL CARTRIDGES Cost																		
Recurring Cost																		
7.1.1) CTG, .38 BLANK (A403)	0.27	62,750	0.017	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.017*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - (AH100) 38CAL CARTRIDGES Cost	**-**	**-**	***0.017***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH100) 45 CAL CARTRIDGES Cost																		
Recurring Cost																		
8.1.1) CTG, .45 CAL BALL (A475)	0.27	384,000	0.102	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.102*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH100) 45 CAL CARTRIDGES Cost	**-**	**-**	***0.102***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH100) 9MM CARTRIDGES Cost																		
Recurring Cost																		
9.1.1) CTG, 9MM, BALL (A363)(†)	0.18	100,858K	18.027	0.17	6,373,000	1.083	0.17	9,000,000	1.530	-	-	0.000	-	-	0.000	-	-	0.000
9.1.2) CTG., 9MM, BALL, XM1152 (AC20)(†) (5)	-	-	0.000	-	-	0.000	-	-	0.000	0.19	8,500,000	1.615	-	-	0.000	0.19	8,500,000	1.615
9.1.3) CTG., 9MM, SPECIAL, JHP, XM1153 (AC21)(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.22	150,000	0.033	-	-	0.000	0.22	150,000	0.033
9.1.4) CTG, 9MM, FRANGIBLE (AA16)(†)	0.31	6,872,985	2.106	0.32	2,500,000	0.800	0.33	1,500,000	0.495	0.34	1,500,000	0.510	-	-	0.000	0.34	1,500,000	0.510
9.1.5) (AB13) CTG, 9MM, FX, MARKING, BLUE (AB13)(†)	0.56	1,740,000	0.966	-	-	0.000	0.64	170,000	0.109	-	-	0.000	-	-	0.000	-	-	0.000
9.1.6) (AB14) CTG, 9MM, FX, MARKING, RED (AB14)(†)	0.56	5,999,818	3.367	-	-	0.000	0.64	650,000	0.416	-	-	0.000	-	-	0.000	-	-	0.000
9.1.7) CTG, 9MM, FX, MARKING, BLUE (AC36)(†) (6)	-	-	0.000	0.63	250,000	0.158	-	-	0.000	0.68	125,000	0.085	-	-	0.000	0.68	125,000	0.085
9.1.8) CTG., 9MM, FX, MARKING, RED (AC37)(†) (7)	-	-	0.000	0.63	682,500	0.430	-	-	0.000	0.68	650,000	0.442	-	-	0.000	0.68	650,000	0.442
Subtotal: Recurring Cost	-	-	*24.466*	-	-	*2.471*	-	-	*2.550*	-	-	*2.685*	-	-	*0.000*	-	-	*2.685*
Subtotal: Hardware - (AH100) 9MM CARTRIDGES Cost	**-**	**-**	***24.466***	**-**	**-**	***2.471***	**-**	**-**	***2.550***	**-**	**-**	***2.685***	**-**	**-**	***0.000***	**-**	**-**	***2.685***
Hardware - (AH100) GRENADES Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Recurring Cost																		
10.1.1) FUZE, DELAY M228 (G878)(†)	5.89	27,486	0.162	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.2) GRENADE, VEHICLE LAUNCHED IR/S (GG42)	234.13	7,701	1.803	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.3) GRENADE, HND, SMK, GREEN (G940)	34.01	25,048	0.852	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.4) GRENADE, HND, SMK, VIOLET (G955)(†)	-	-	0.001	58.10	10,000	0.581	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.5) GRENADE, HND, SMK, YELLOW (G945)	34.36	19,646	0.675	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.6) GRENADE, HND, SMK, WHITE (GG34)(†)	30.52	25,000	0.763	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
10.1.7) GRENADE, HND, SMK, RED (G950)(†)	52.16	10,352	0.540	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*4.796*	-	-	*0.581*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH100) GRENADES Cost	**-**	**-**	***4.796***	**-**	**-**	***0.581***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH100) MINES Cost																		
Recurring Cost																		
11.1.1) RIOT CNTRL, CS (K765)	0.40	22,280	0.009	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.009*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH100) MINES Cost	**-**	**-**	***0.009***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH100) SHOTGUN CARTRIDGES Cost																		
Recurring Cost																		
12.1.1) CTG, 12 GA NO. 00 (A011)(†)	0.54	3,672,920	1.967	0.54	750,000	0.405	0.55	750,000	0.413	0.56	750,000	0.420	-	-	0.000	0.56	750,000	0.420
12.1.2) CTG, 12 GA, FRANGIBLE (AA86)(†)	0.89	2,243,170	2.006	-	-	0.000	-	-	0.000	1.65	500,000	0.825	-	-	0.000	1.65	500,000	0.825
Subtotal: Recurring Cost	-	-	*3.973*	-	-	*0.405*	-	-	*0.413*	-	-	*1.245*	-	-	*0.000*	-	-	*1.245*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - (AH100) SHOTGUN CARTRIDGES Cost	**-**	**-**	***3.973***	**-**	**-**	***0.405***	**-**	**-**	***0.413***	**-**	**-**	***1.245***	**-**	**-**	***0.000***	**-**	**-**	***1.245***
Hardware - (AH350) MATCH AMMO Cost																		
Recurring Cost																		
13.1.1) CTG, .22 CAL, BALL, LR, MATCH (A091)	0.13	2,215,000	0.288	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
13.1.2) CTG., 12 GA SHOTGUN (A002)	0.40	203,000	0.081	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
13.1.3) CTG., 12 GAUGE SHOTGUN, TRAP/SKEET PAS (A003)	0.40	203,000	0.081	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
13.1.4) CTG., 45 CAL, BALL, M1911, M (A483)	0.28	112,000	0.031	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.481*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH350) MATCH AMMO Cost	**-**	**-**	***0.481***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH850) PRODUCT IMPROVEMENT Cost																		
Recurring Cost																		
14.1.1) PRODUCT IMPROVEMENT	-	-	1.055	-	-	0.000	-	-	0.000	-	-	0.247	-	-	0.000	-	-	0.247
Subtotal: Recurring Cost	-	-	*1.055*	-	-	*0.000*	-	-	*0.000*	-	-	*0.247*	-	-	*0.000*	-	-	*0.247*
Subtotal: Hardware - (AH850) PRODUCT IMPROVEMENT Cost	**-**	**-**	***1.055***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.247***	**-**	**-**	***0.000***	**-**	**-**	***0.247***
Hardware - (AH893) RENOVATION COMPONENTS Cost																		
Recurring Cost																		
15.1.1) RENOVATION COMPONENTS	-	-	2.823	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*2.823*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AH893) RENOVATION COMPONENTS Cost	**-**	**-**	***2.823***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AH894) GAUGE REQUIREMENTS Cost																		
Recurring Cost																		
16.1.1) GAUGE REQUIREMENTS	-	-	0.118	-	-	0.023	-	-	0.030	-	-	0.030	-	-	0.000	-	-	0.030

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Recurring Cost	-	-	*0.118*	-	-	*0.023*	-	-	*0.030*	-	-	*0.030*	-	-	*0.000*	-	-	*0.030*
Subtotal: Hardware - (AH894) GAUGE REQUIREMENTS Cost	**-**	**-**	***0.118***	**-**	**-**	***0.023***	**-**	**-**	***0.030***	**-**	**-**	***0.030***	**-**	**-**	***0.000***	**-**	**-**	***0.030***
Hardware - (AH895) NON-STANDARD Cost																		
Recurring Cost																		
17.1.1) NON-STANDARD	-	-	1.207	-	-	0.630	-	-	0.640	-	-	0.400	-	-	0.000	-	-	0.400
Subtotal: Recurring Cost	-	-	*1.207*	-	-	*0.630*	-	-	*0.640*	-	-	*0.400*	-	-	*0.000*	-	-	*0.400*
Subtotal: Hardware - (AH895) NON-STANDARD Cost	**-**	**-**	***1.207***	**-**	**-**	***0.630***	**-**	**-**	***0.640***	**-**	**-**	***0.400***	**-**	**-**	***0.000***	**-**	**-**	***0.400***
Support - (AH830) PRODUCTION ENGINEERING Cost																		
18.1) PRODUCTION ENGINEERING	-	-	20.420	-	-	2.727	-	-	2.436	-	-	2.681	-	-	0.000	-	-	2.681
Subtotal: Support - (AH830) PRODUCTION ENGINEERING Cost	**-**	**-**	***20.420***	**-**	**-**	***2.727***	**-**	**-**	***2.436***	**-**	**-**	***2.681***	**-**	**-**	***0.000***	**-**	**-**	***2.681***
Support - Prior Year Funding Cost																		
19.1) Prior Year Funding	-	-	2.833	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Support - Prior Year Funding Cost	**-**	**-**	***2.833***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**314.010**	**-**	**-**	**24.770**	**-**	**-**	**28.351**	**-**	**-**	**28.484**	**-**	**-**	**0.000**	**-**	**-**	**28.484**

Remarks:

[Hardware] [P5 /(AH100)HARDWARE]: Provides for all types of components, load and assemble complete rounds and conduct acceptance tests. Provides for Transportation Account Code (TAC) first destination of delivery of production items and Single Manager Conventional Ammunition (SMCA) related costs.

[Hardware] [P5 / (AH850) PRODUCT IMPROVEMENT]:
Provides engineering services and related effort by the producing contractor or manufacturing installation to extend the useful military life of an item or to improve the item within the current performance envelope.

[Hardware] [P5 / (AH894) GAUGE REQUIREMENTS]:
Provides for procurement of gauges, auxiliary and test equipment and support costs necessary for ammunition metrology to check critical dimensions/parameters of ammunition items and their parts. This is to assure proper mating of parts and subassemblies, assure correct interfacing between the ammunition and guns, and proper ammunition performance.

[Hardware] [P5 / (AH895) NON-STANDARD ITEMS]:
Provides for non-standard items of ammunition. Includes training aids and initial procurements of required non type classified munition items including law enforcement ammunition for NCIS.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

[Support Cost] AH830: SALP Production Engineering provides for production engineering services to support new acquisition and in production ammunition.

(†) indicates the presence of a P-5a

Footnotes:

(1) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(2) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(3) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(4) Procuring CTG, 5.56MM, BALL, M855A1 EPR (AB57) instead of CTG, 5.56MM M855 (A059) to maintain commonality with the US Army and USMC.

(5) Procuring CTG., 9MM, BALL, XM1152 (AC20) instead of CTG, 9MM, BALL (A363) to maintain commonality with US Army and USMC.

(6) Procuring CTG, 9MM, FX, MARKING, BLUE (AC36) instead of CTG, 9MM, FX, MARKING BLUE (AB13) to reduce personnel exposure to lead during training.

(7) Procuring CTG, 9MM, FX, MARKING, RED (AC37) instead of CTG, 9MM, FX, MARKING RED (AB14) to reduce personnel exposure to lead during training.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.1) CARTRIDGE, MK 308 MOD 0, .40 (DWGW)		2020	TBD / TBD	C / FFP	NSWC CRANE	Mar 2020	Jun 2020	250,000	0.34	Y		Oct 2018
3.1.2) CARTRIDGE .40 CALS&W (DWGX)		2020	TBD / TBD	C / FFP	NSWC CRANE	Mar 2020	Jun 2020	200,000	0.31	Y		Oct 2018
4.1.2) CTG, .50 LINKED (A576)		2018	NORTHROP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Aug 2018	Nov 2019	600,000	1.98	Y		Oct 2017
4.1.2) CTG, .50 LINKED (A576)		2019	NORTHROP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Sep 2020	550,500	1.98	Y		Oct 2017
4.1.2) CTG, .50 LINKED (A576)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Sep 2021	350,000	2.04	Y		Sep 2018
4.1.2) CTG, .50 LINKED (A576)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Jun 2022	400,000	2.10	Y		Sep 2018
4.1.4) CTG, 50 CAL, LKD, BALL (A555)		2017	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Jul 2017	Aug 2018	1,305,400	1.71	Y		Oct 2015
4.1.4) CTG, 50 CAL, LKD, BALL (A555)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Aug 2018	Nov 2019	1,477,586	1.74	Y		Oct 2017
4.1.4) CTG, 50 CAL, LKD, BALL (A555)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Sep 2020	805,000	1.77	Y		Oct 2017
4.1.4) CTG, 50 CAL, LKD, BALL (A555)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Sep 2021	1,384,600	1.82	Y		Sep 2018
4.1.4) CTG, 50 CAL, LKD, BALL (A555)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Sep 2022	1,434,600	1.88	Y		Sep 2018
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†)		2017	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Jul 2017	Apr 2019	4,096,000	1.75	Y		Oct 2015
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Aug 2018	Nov 2019	5,197,200	1.79	Y		Oct 2017
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Sep 2020	2,836,500	1.83	Y		Oct 2017
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Mar 2021	4,871,200	1.88	Y		Sep 2018
4.1.5) CTG, 50 CAL, LKD & TRACER (A557)(†)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	3,449,500	1.94	Y		Sep 2018
4.1.6) CTG, 50 CAL REDUCED RANGE, LKD BALL (AB65)		2021	TBD / TBD	C / FFP	MARCORSYSCOM	Mar 2021	Mar 2022	150,000	4.16	Y		Sep 2020
5.1.2) CTG, 5.56MM M855 (A059)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Apr 2020	6,000,000	0.24	Y		Oct 2017
5.1.2) CTG, 5.56MM M855 (A059)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Sep 2021	4,944,000	0.25	Y		Sep 2018
5.1.5) CTG., 5.56MM, BALL, M855A1 EPR (AB57)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	5,000,000	0.28	Y		Oct 2019
5.1.6) CTG, 5.56MM, SRTR AMMO (AB67)		2018	GDOTS CANADA / CANADA	SS / FFP	JMC ROCK ISLAND	Jul 2018	May 2019	387,000	0.98	Y		Oct 2016
5.1.6) CTG, 5.56MM, SRTR AMMO (AB67)		2019	GDOTS CANADA / CANADA	SS / FFP	JMC ROCK ISLAND	Mar 2019	Mar 2020	300,000	1.36	Y		Oct 2016

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1.6) CTG, 5.56MM, SRTR AMMO (AB67)		2020	GDOTS CANADA / CANADA	SS / FFP	JMC ROCK ISLAND	Mar 2020	Jan 2021	360,000	1.39	Y		Oct 2016
5.1.6) CTG, 5.56MM, SRTR AMMO (AB67)		2021	GDOTS CANADA / CANADA	SS / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	360,000	1.41	Y		Oct 2016
6.1.1) CTG. 7.62MM (A257)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2018	Mar 2019	315,000	0.49	Y		Oct 2017
6.1.1) CTG. 7.62MM (A257)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Jun 2020	350,000	0.48	Y		Oct 2017
6.1.1) CTG. 7.62MM (A257)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Oct 2021	350,000	0.49	Y		Oct 2018
6.1.1) CTG. 7.62MM (A257)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Nov 2021	350,000	0.51	Y		Oct 2018
6.1.3) CTG, 7.62MM, SRTA, BALL, LINKED M973 (AB60)		2018	GENERAL DYNAMICS OTS / CANADA	C / FFP	ACC-PICATINNY ARSENAL	Jul 2018	Dec 2019	187,200	1.83	Y		Oct 2016
6.1.3) CTG, 7.62MM, SRTA, BALL, LINKED M973 (AB60)		2019	GDOTS CANADA / CANADA	C / FFP	ARSENAL	Mar 2019	Mar 2020	200,000	1.86	Y		Oct 2017
6.1.3) CTG, 7.62MM, SRTA, BALL, LINKED M973 (AB60)		2020	GDOTS CANADA / CANADA	C / FFP	ARSENAL	Mar 2020	Mar 2021	200,000	1.90	Y		Oct 2017
6.1.3) CTG, 7.62MM, SRTA, BALL, LINKED M973 (AB60)		2021	GDOTS CANADA / CANADA	C / FFP	ARSENAL	Mar 2021	Mar 2022	200,000	1.94	Y		Oct 2017
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)		2017	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Jul 2017	Feb 2019	6,882,352	0.51	Y		Oct 2013
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2018	Dec 2019	6,158,400	0.52	Y		Oct 2017
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Sep 2020	6,000,000	0.54	Y		Oct 2017
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Sep 2021	5,500,000	0.56	Y		Oct 2018
6.1.4) CTG, 7.62MM, LKD, BALL AND TR (A131)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Sep 2022	5,025,000	0.57	Y		Oct 2018
6.1.5) CTG, 7.62MM, BALL, M80, LKD (A143)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2019	876,800	0.50	Y		Oct 2017
6.1.5) CTG, 7.62MM, BALL, M80, LKD (A143)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Oct 2020	850,000	0.52	Y		Oct 2017
6.1.5) CTG, 7.62MM, BALL, M80, LKD (A143)		2020	TBD / TBD	C / FFP	JMC ROCK ISLAND	Mar 2020	Oct 2021	900,000	0.54	Y		Oct 2018
6.1.5) CTG, 7.62MM, BALL, M80, LKD (A143)		2021	TBD / TBD	C / FFP	JMC ROCK ISLAND	Mar 2021	Oct 2022	850,000	0.55	Y		Oct 2018
6.1.6) CTG, 7.62MM, LKD (A165)		2018	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Jul 2018	Dec 2019	2,450,000	0.53	Y		Oct 2017
6.1.6) CTG, 7.62MM, LKD (A165)		2019	NORTHRUP GRUMMAN / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2019	Oct 2020	2,000,000	0.48	Y		Oct 2017
6.1.6) CTG, 7.62MM, LKD (A165)		2020	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2020	Oct 2021	2,000,000	0.49	Y		Oct 2018
6.1.6) CTG, 7.62MM, LKD (A165)		2021	OLIN-WINCHESTER / LCAAP	C / FFP	JMC ROCK ISLAND	Mar 2021	Oct 2022	3,000,000	0.51	Y		Oct 2018

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
9.1.1) CTG, 9MM, BALL (A363)		2017	OLIN-WINCHESTER / OXFORD, MS	C / FFP	JMC ROCK ISLAND	Jul 2017	Jul 2019	9,000,000	0.16	Y		Oct 2015
9.1.1) CTG, 9MM, BALL (A363)		2018	OLIN-WINCHESTER / OXFORD, MS	C / FFP	JMC ROCK ISLAND	Mar 2018	May 2020	10,064,000	0.17	Y		Oct 2015
9.1.1) CTG, 9MM, BALL (A363)		2019	OLIN-WINCHESTER / OXFORD, MS	MIPR	JMC ROCK ISLAND	Mar 2019	Apr 2019	6,373,000	0.17	Y		Oct 2015
9.1.1) CTG, 9MM, BALL (A363)		2020	OLIN-WINCHESTER / OXFORD, MS	C / FFP	JMC ROCK ISLAND	Mar 2020	May 2022	9,000,000	0.17	Y		Oct 2015
9.1.2) CTG., 9MM, BALL, XM1152 (AC20)		2021	SIG SAUER / EXETER, NH	C / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	8,500,000	0.19	Y		Oct 2016
9.1.3) CTG., 9MM, SPECIAL, JHP, XM1153 (AC21)		2021	SIG SAUER / EXETER, NH	C / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	150,000	0.22	Y		Oct 2019
9.1.4) CTG, 9MM, FRANGIBLE (AA16)		2018	OLIN-WINCHESTER / OXFORD, MS	C / FFP	NSWC CRANE	Sep 2018	Oct 2019	687,500	0.32	Y		Oct 2015
9.1.4) CTG, 9MM, FRANGIBLE (AA16)		2019	OLIN-WINCHESTER / OXFORD, MS	C / FFP	NSWC CRANE	Mar 2019	Apr 2020	2,500,000	0.32	Y		Oct 2015
9.1.4) CTG, 9MM, FRANGIBLE (AA16)		2020	OLIN-WINCHESTER / OXFORD, MS	C / FFP	NSWC CRANE	Mar 2020	Apr 2021	1,500,000	0.33	Y		Oct 2015
9.1.4) CTG, 9MM, FRANGIBLE (AA16)		2021	TBD / TBD	C / FFP	NSWC CRANE	Mar 2021	Apr 2022	1,500,000	0.34	Y		Jan 2019
9.1.5) (AB13) CTG, 9MM, FX, MARKING, BLUE (AB13)		2020	GDOTS CANADA / CANADA	SS / FFP	ACC-PICATINNY, NJ	Mar 2020	Oct 2020	170,000	0.64	Y		Oct 2017
9.1.6) (AB14) CTG, 9MM, FX, MARKING, RED (AB14)		2018	GDOTS CANADA / CANADA	C / FFP	ACC-PICATINNY, NJ	Sep 2019	Apr 2020	800,000	0.63	Y		Oct 2017
9.1.6) (AB14) CTG, 9MM, FX, MARKING, RED (AB14)		2020	GDOTS CANADA / CANADA	SS / FFP	ACC-PICATINNY, NJ	Mar 2020	Sep 2020	650,000	0.64	Y		Oct 2017
9.1.7) CTG, 9MM, FX, MARKING, BLUE (AC36)		2019	GDOTS CANADA / CANADA	C / FFP	ACC-PICATINNY, NJ	Mar 2019	Oct 2020	250,000	0.63	Y		Sep 2015
9.1.7) CTG, 9MM, FX, MARKING, BLUE (AC36)		2021	GDOTS CANADA / CANADA	C / FFP	ACC-PICATINNY, NJ	Mar 2021	Mar 2022	125,000	0.68	Y		Sep 2015
9.1.8) CTG., 9MM, FX, MARKING, RED (AC37)		2019	GDOTS CANADA / CANADA	C / FFP	ACC-PICATINNY, NJ	Jul 2019	Apr 2020	682,500	0.63	Y		Sep 2015
9.1.8) CTG., 9MM, FX, MARKING, RED (AC37)		2021	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Mar 2021	Mar 2022	650,000	0.68	Y		Sep 2015
10.1.1) FUZE, DELAY M228 (G878)		2015	MARTIN ELECTRONICS, INC. / PERRY,FL	C / FFP	JMC ROCK ISLAND	Oct 2015	Mar 2020	1,680	13.44	Y		Jun 2011
10.1.4) GRENADE, HND, SMK, VIOLET (G955)		2019	PINE BLUFF ARSENAL / PINE BLUFF, AR	MIPR	NO PCO	Mar 2019	Sep 2020	10,000	58.10	Y		Oct 2018
10.1.6) GRENADE, HND, SMK, WHITE (GG34)		2018	PINE BLUFF ARSENAL / PINE BLUFF, AR	MIPR	NO PCO	Jan 2020	Jan 2021	10,000	31.00	Y		Oct 2017
10.1.7) GRENADE, HND, SMK, RED (G950)		2017	PINE BLUFF ARSENAL / PINE BLUFF, AR	MIPR	NO PCO	Mar 2018	Apr 2020	10,352	52.16	Y		Jul 2016
12.1.1) CTG, 12 GA NO. 00 (A011)		2019	OLIN CORP / ILLINOIS.	C / FFP	JMC ROCK ISLAND	Mar 2019	Sep 2020	750,000	0.54	Y		Oct 2017

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty *(Each)*	Unit Cost *($)*	Specs Avail Now?	Date Revision Available	RFP Issue Date
12.1.1) CTG, 12 GA NO. 00 (A011)		2021	OLIN CORP / ILLINOIS.	C / FFP	JMC ROCK ISLAND	Mar 2021	Apr 2022	750,000	0.56	Y		Oct 2017
12.1.2) CTG, 12 GA, FRANGIBLE (AA86)		2021	TBD / TBD	C / FFP	NSWC Indian Head	Mar 2021	Sep 2022	500,000	1.65	Y		Oct 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016												Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.5) CTG, 50 CAL, LKD & TRACER (A557) (3)																															
Prior Years Deliveries: 29736690																															
	1	2017	NAVY	4.096	.000	4.096																						A -	-	-	4.096
	1	2018	NAVY	5.197	.000	5.197																									5.197
	1	2019	NAVY	2.836	.000	2.836																									2.836
	2	2020	NAVY	4.871	.000	4.871																									4.871
	2	2021	NAVY	3.450	.000	3.450																									3.450
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.5) CTG, 50 CAL, LKD & TRACER (A557) (3)																															
Prior Years Deliveries: 29736690																															
	1	2017	NAVY	4.096	.000	4.096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.000	1.000	1.000	1.096			.000
	1	2018	NAVY	5.197	.000	5.197											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	5.197
	1	2019	NAVY	2.836	.000	2.836																		A -	-	-	-	-	-	-	2.836
	2	2020	NAVY	4.871	.000	4.871																									4.871
	2	2021	NAVY	3.450	.000	3.450																									3.450
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.5) CTG, 50 CAL, LKD & TRACER (A557) [3]																															
Prior Years Deliveries: 29736690																															
	1	2017	NAVY	4.096	4.096	.000																									.000
	1	2018	NAVY	5.197	.000	5.197	-	1.000	1.000	1.000	1.000	1.197																			.000
	1	2019	NAVY	2.836	.000	2.836	-	-	-	-	-	-	-	-	-	-	-	1.000	1.000	.836											.000
	2	2020	NAVY	4.871	.000	4.871						A -	-	-	-	-	-	-	-	-	-	-	-	1.000	1.000	1.000	1.000	.871			.000
	2	2021	NAVY	3.450	.000	3.450																		A -	-	-	-	-	-	-	3.450
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.5) CTG, 50 CAL, LKD & TRACER (A557) [3]																															
Prior Years Deliveries: 29736690																															
	1	2017	NAVY	4.096	4.096	.000																									.000
	1	2018	NAVY	5.197	5.197	.000																									.000
	1	2019	NAVY	2.836	2.836	.000																									.000
	2	2020	NAVY	4.871	4.871	.000																									.000
	2	2021	NAVY	3.450	.000	3.450	-	-	-	-	-	1.000	1.000	1.000	.450																.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 1 / Integrated Warfare Systems

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	NORTHRUP GRUMMAN - LCAAP		6,000	10,000,000	6	6	12	18	6	6	9	15
2	OLIN-WINCHESTER - LCAAP		6,000	10,000,000	4	4	18	22	4	4	12	16

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 2 / Naval Special Warfare (NSW)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	142.824	19.118	20.555	19.718	1.624	21.342
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	142.824	19.118	20.555	19.718	1.624	21.342
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**142.824**	**19.118**	**20.555**	**19.718**	**1.624**	**21.342**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - (AHNSW) SMCA Cost																		
Recurring Cost																		
1.1.1) (AHNSW) SMCA	-	-	1.965	-	-	0.976	-	-	1.548	-	-	0.518	-	-	0.000	-	-	0.518
Subtotal: Recurring Cost	-	-	*1.965*	-	-	*0.976*	-	-	*1.548*	-	-	*0.518*	-	-	*0.000*	-	-	*0.518*
Subtotal: Hardware - (AHNSW) SMCA Cost	**-**	**-**	***1.965***	**-**	**-**	***0.976***	**-**	**-**	***1.548***	**-**	**-**	***0.518***	**-**	**-**	***0.000***	**-**	**-**	***0.518***
Hardware - (AHNSW) GRENADES Cost																		
Recurring Cost																		
2.1.1) GRENADE,HAND,SMOKE GREEN (G940)(†)	61.97	14,992	0.929	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.2) GRENADE, 66MM SMOKE SCREENING (GG24)	235.00	2,000	0.470	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.3) FUZE, DELAY M228, F/M 68 HAND GRND (G878)(†)	10.42	81,788	0.852	-	-	0.000	10.73	20,360	0.218	-	-	0.000	-	-	0.000	-	-	0.000
2.1.4) GRENADE, VEHICLE LAUNCHED IR/S (GG42)(†)	253.99	2,004	0.509	-	-	0.000	278.72	4,000	1.115	-	-	0.000	-	-	0.000	-	-	0.000
2.1.5) GRENADE, HAND, FRAG (G881)(†)	37.57	12,270	0.461	-	-	0.000	65.00	6,000	0.390	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 2 / Naval Special Warfare (NSW)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.6) GRENADE, HAND, SMOKE, YELLOW (G945)(†)	50.47	10,700	0.540	53.64	14,992	0.804	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.7) GRENADE, HAND, SMOKE, RED (G950)	41.77	35,000	1.462	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*5.223*	-	-	*0.804*	-	-	*1.723*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AHNSW) GRENADES Cost	**-**	**-**	***5.223***	**-**	**-**	***0.804***	**-**	**-**	***1.723***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AHNSW) 9MM CARTRIDGES Cost																		
Recurring Cost																		
3.1.1) CTG, 9MM MMR, GREEN PRIMER (RED), M1041 (AC37)(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.72	400,000	0.288	-	-	0.000	0.72	400,000	0.288
3.1.2) CTG, 9MM, MMR,GREEN PRIMER (BLUE), M1041 (AC36)(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.72	100,000	0.072	-	-	0.000	0.72	100,000	0.072
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)(†)	0.57	3,761,425	2.153	0.63	1,873,015	1.180	0.62	1,000,000	0.619	-	-	0.000	-	-	0.000	-	-	0.000
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)(†)	0.58	3,705,285	2.132	0.63	1,873,015	1.180	0.61	1,000,000	0.613	-	-	0.000	-	-	0.000	-	-	0.000
3.1.5) CTG, 9MM BALL (A363)(†) (8)	0.17	65,436,732	11.386	0.17	6,352,941	1.080	0.18	6,000,000	1.099	0.20	6,000,000	1.205	-	-	0.000	0.20	6,000,000	1.205
3.1.6) CTG, 9MM REDUCED RICOCHETTE, LOW PEN (AA16)(†)	0.47	500,000	0.235	0.51	500,000	0.255	0.52	500,000	0.260	0.53	500,000	0.265	-	-	0.000	0.53	500,000	0.265
Subtotal: Recurring Cost	-	-	*15.906*	-	-	*3.695*	-	-	*2.591*	-	-	*1.830*	-	-	*0.000*	-	-	*1.830*
Subtotal: Hardware - (AHNSW) 9MM CARTRIDGES Cost	**-**	**-**	***15.906***	**-**	**-**	***3.695***	**-**	**-**	***2.591***	**-**	**-**	***1.830***	**-**	**-**	***0.000***	**-**	**-**	***1.830***
Hardware - (AHNSW) 7.62MM CARTRIDGES Cost																		
Recurring Cost																		
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)(†)	1.31	10,268,042	13.469	2.24	1,200,200	2.688	2.29	1,800,000	4.122	2.28	1,000,200	2.280	-	-	0.000	2.28	1,000,200	2.280

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 2 / Naval Special Warfare (NSW)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
4.1.2) CTG, 7.62MM, M993 AP, W/M62 Std Tracer (AA36)(†)	0.53	880,500	0.463	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.3) CTG, 7.62MM BLANK, LINKED (A111)(†) (9)	0.45	14,377,815	6.440	0.39	4,000,000	1.560	0.39	3,100,000	1.209	0.50	3,100,000	1.550	-	-	0.000	0.50	3,100,000	1.550
4.1.4) CTG, 7.62MM BALL LINKED (NO TRACER) (A143)(†)	0.50	343,200	0.172	-	-	0.000	-	-	0.000	0.66	200,000	0.132	-	-	0.000	0.66	200,000	0.132
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)(†)	0.51	10,317,868	5.301	0.51	2,001,000	1.021	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.6) CTG, 7.62MM BALL (SOST) (AB50)	-	-	0.001	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)(†) (10)	0.59	44,097,225	25.854	0.54	2,564,814	1.385	0.54	2,000,000	1.080	0.69	2,347,200	1.620	0.69	904,000	0.624	0.69	3,251,200	2.244
4.1.9) CTG 7.62MM SPECIAL BALL LONG RANGE (AB39)(†)	-	-	0.000	-	-	0.000	0.98	460,000	0.450	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*51.700*	-	-	*6.654*	-	-	*6.861*	-	-	*5.582*	-	-	*0.624*	-	-	*6.206*
Subtotal: Hardware - (AHNSW) 7.62MM CARTRIDGES Cost	**-**	**-**	***51.700***	**-**	**-**	***6.654***	**-**	**-**	***6.861***	**-**	**-**	***5.582***	**-**	**-**	***0.624***	**-**	**-**	***6.206***
Hardware - (AHNSW) 5.56MM CARTRIDGES Cost																		
Recurring Cost																		
5.1.2) CTG, 5.56MM JACKETED FRANGIBLE MK (AA40)(†)	0.38	1,569,631	0.599	0.68	400,160	0.272	0.50	317,520	0.159	-	-	0.000	-	-	0.000	-	-	0.000
5.1.3) CTG, 5.56MM BALL, CARBINE, BARRIER, MK (AB49)(†)	0.34	1,616,760	0.554	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.4) CTG, 5.56MM CTG BALL B855 LKD F/SAW (A062)(†)	0.32	720,000	0.228	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.5) CTG 5.56MM BALL (A071)(†)	-	-	0.000	-	-	0.000	0.25	1,001,280	0.246	0.28	3,000,480	0.840	-	-	0.000	0.28	3,000,480	0.840

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.1.6) CTG, 5.56MM, LINKED (A075)(†)	0.38	4,800,800	1.810	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.7) CTG, 5.56MM BLANK (TRAINING ITEM) (A080)(†)	0.20	8,014,210	1.638	-	-	0.000	-	-	0.000	0.18	2,001,840	0.360	-	-	0.000	0.18	2,001,840	0.360
5.1.8) CTG, 5.56MM 77 GRAIN, MK 262 MOD 0/1, LONG (AA53)(†)	0.65	1,977,076	1.285	-	-	0.000	0.82	642,880	0.527	-	-	0.000	-	-	0.000	-	-	0.000
5.1.9) CTG, 5.56MM MARKING, RED (AA12)	-	-	0.001	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.10) CTG, 9/5.56MM MARKING, BLUE (AA21)	-	-	0.001	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.11) CTG, 5.56MM LINKED (A064)(†)	0.46	7,808,000	3.629	-	-	0.000	0.34	1,000,000	0.340	-	-	0.000	-	-	0.000	-	-	0.000
5.1.12) CTG, 5.56MM SHORT RANGE TRAINING (AB67)(†)	1.31	588,600	0.772	1.39	388,489	0.540	1.39	405,755	0.564	1.24	403,200	0.500	-	-	0.000	1.24	403,200	0.500
5.1.13) CTG 5.56MM BALL LFS M855A1 (AB57)(†)	0.29	80,640	0.023	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.14) CTG 5.56MM SHORT RANGE TRAINING AMMO (AC10)(†)	1.38	216,000	0.297	-	-	0.000	-	-	0.000	1.83	145,600	0.266	-	-	0.000	1.83	145,600	0.266
Subtotal: Recurring Cost	-	-	*10.837*	-	-	*0.812*	-	-	*1.836*	-	-	*1.966*	-	-	*0.000*	-	-	*1.966*
Subtotal: Hardware - (AHNSW) 5.56MM CARTRIDGES Cost	**-**	**-**	***10.837***	**-**	**-**	***0.812***	**-**	**-**	***1.836***	**-**	**-**	***1.966***	**-**	**-**	***0.000***	**-**	**-**	***1.966***
Hardware - (AHNSW) .50 CAL CARTRIDGES Cost																		
Recurring Cost																		
6.1.1) CTG. 50 CAL, LINKED BALL MK 322 MOD 1/TRAC (AC15)(†)	-	-	0.000	-	-	0.000	-	-	0.000	5.40	600,000	3.240	-	-	0.000	5.40	600,000	3.240
6.1.2) CTG, 50 CAL, LINKED, BALL MK 322/TRACER MK (AB64)(†)	4.12	1,600,000	6.594	5.20	400,000	2.080	5.30	358,800	1.902	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
6.1.3) CTG, CAL .50 LINKED BALL (NO TRACER) (A555)(†)	2.11	2,740,318	5.772	-	-	0.000	-	-	0.000	2.54	200,000	0.508	-	-	0.000	2.54	200,000	0.508
6.1.4) CTG, CAL .50 LINKED, BALL/ TRACER (A557)(†)	1.89	3,613,894	6.834	1.83	220,765	0.404	-	-	0.000	2.65	300,000	0.795	-	-	0.000	2.65	300,000	0.795
6.1.5) CTG, CAL .50 APL MK 211 MIULTI PURPOSE (A606)(†)	14.55	50,160	0.730	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)(†) (11)	1.97	8,952,886	17.677	1.98	1,004,545	1.989	2.12	882,000	1.869	2.61	500,000	1.305	2.61	383,141	1.000	2.61	883,141	2.305
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)(†) (12)	1.27	8,340,550	10.593	1.34	600,000	0.804	1.34	800,000	1.072	1.66	800,000	1.328	-	-	0.000	1.66	800,000	1.328
6.1.8) CTG CAL .50 LINKED, 4 SLAP M903 (A518)(†)	-	-	0.000	-	-	0.000	-	-	0.000	14.65	100,000	1.465	-	-	0.000	14.65	100,000	1.465
Subtotal: Recurring Cost	-	-	*48.200*	-	-	*5.277*	-	-	*4.843*	-	-	*8.641*	-	-	*1.000*	-	-	*9.641*
Subtotal: Hardware - (AHNSW) .50 CAL CARTRIDGES Cost	**-**	**-**	***48.200***	**-**	**-**	***5.277***	**-**	**-**	***4.843***	**-**	**-**	***8.641***	**-**	**-**	***1.000***	**-**	**-**	***9.641***
Hardware - (AHNSW) SHOTGUN CARTRIDGES Cost																		
Recurring Cost																		
7.1.1) CTG, 12 GAUGE SHOTGUN 00 BUCK (A011)	-	-	0.001	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.001*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - (AHNSW) SHOTGUN CARTRIDGES Cost	**-**	**-**	***0.001***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AHNSW) MATCH AMMO Cost																		
Recurring Cost																		
8.1.1) CTG, CAL .300 MATCH (A191)(†)	1.22	864,363	1.054	-	-	0.000	1.37	100,800	0.138	-	-	0.000	-	-	0.000	-	-	0.000
8.1.2) CTG, CAL 45 MATCH (A483)(†)	0.34	200,000	0.068	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*1.122*	-	-	*0.000*	-	-	*0.138*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - (AHNSW) MATCH AMMO Cost	-	-	***1.122***	-	-	***0.000***	-	-	***0.138***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***
Hardware - (AHNSW) TRANSPORTATION ACCOUNT CODE (TAC) Cost																		
Recurring Cost																		
9.1.1) NSW TRANSPORTATION ACCOUNT CODE (TAC)	-	-	1.870	-	-	0.250	-	-	0.350	-	-	0.500	-	-	0.000	-	-	0.500
Subtotal: Recurring Cost	-	-	*1.870*	-	-	*0.250*	-	-	*0.350*	-	-	*0.500*	-	-	*0.000*	-	-	*0.500*
Subtotal: Hardware - (AHNSW) TRANSPORTATION ACCOUNT CODE (TAC) Cost	-	-	***1.870***	-	-	***0.250***	-	-	***0.350***	-	-	***0.500***	-	-	***0.000***	-	-	***0.500***
Support - (NS830) PRODUCTION ENGINEERING Cost																		
10.1) Production Engineering	-	-	6.000	-	-	0.650	-	-	0.665	-	-	0.681	-	-	0.000	-	-	0.681
Subtotal: Support - (NS830) PRODUCTION ENGINEERING Cost	-	-	***6.000***	-	-	***0.650***	-	-	***0.665***	-	-	***0.681***	-	-	***0.000***	-	-	***0.681***
Gross/Weapon System Cost	**-**	**-**	**142.824**	**-**	**-**	**19.118**	**-**	**-**	**20.555**	**-**	**-**	**19.718**	**-**	**-**	**1.624**	**-**	**-**	**21.342**

(†) indicates the presence of a P-5a

Footnotes:

(8) CTG, 9MM BALL (A363) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(9) CTG, 7.62MM BLANK, LINKED (A111) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(10) CTG, 7.62MM LNKD, BALL AND TRACER (A131) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(11) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

(12) CTG, CAL .50 LINKED, BLANK, M1A1 (A598) This item is procured via an Army contract that procures ammunition for multiple services. This contract utilizes matrix pricing; therefore, the unit cost is dependent on quantity procured by all services, resulting in unit cost increase beyond standard inflation.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0335 / Small Arms & Lndg Party Ammo	Item Number / Title [DODIC]: 2 / Naval Special Warfare (NSW)

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.1) GRENADE,HAND,SMOKE GREEN (G940)		2018	PINE BLUFF ARSENAL / PINE BLUFF, AR	C / TBD	JMC ROCK ISLAND	Apr 2018	Apr 2020	14,992	61.96	Y		Dec 2017
2.1.3) FUZE, DELAY M228, F/M 68 HAND GRND (G878)		2015	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / FFP	JMC ROCK ISLAND	Mar 2015	Sep 2016	11,660	12.78	Y		Jun 2011
2.1.3) FUZE, DELAY M228, F/M 68 HAND GRND (G878)		2017	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / FFP	JMC ROCK ISLAND	Oct 2016	Apr 2018	36,624	8.84	N	Aug 2015	Jun 2011
2.1.3) FUZE, DELAY M228, F/M 68 HAND GRND (G878)		2018	TBD / TBD	C / TBD	JMC ROCK ISLAND	Feb 2018	Aug 2019	21,504	14.30	Y		Dec 2017
2.1.4) GRENADE, VEHICLE LAUNCHED IR/S (GG42)		2017	AMERICAN RHEINMETALL MUNITIONS / STAFFORD, VA	C / TBD	NSWC CRANE	Apr 2017	Apr 2018	2,004	253.80	N	Mar 2016	Apr 2016
2.1.5) GRENADE, HAND, FRAG (G881)		2013	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / FFP	JMC ROCK ISLAND	Jun 2013	Dec 2014	6,000	36.41	Y		Oct 2012
2.1.5) GRENADE, HAND, FRAG (G881)		2018	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / TBD	JMC ROCK ISLAND	Jun 2018	Dec 2019	6,270	38.68	Y		Dec 2017
2.1.5) GRENADE, HAND, FRAG (G881)	✓	2020	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / TBD	** NO PCO **	Dec 2019	Jun 2021	6,000	65.00	Y		
2.1.6) GRENADE, HAND, SMOKE, YELLOW (G945)		2014	RHEINMETALL / GERMANY	SS / FFP	JMC ROCK ISLAND	Mar 2014	Sep 2015	10,700	50.47	Y		Oct 2012
3.1.1) CTG, 9MM MMR, GREEN PRIMER (RED), M1041 (AC37)		2021	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2021	Feb 2021	400,000	0.72	N	Feb 2021	Feb 2021
3.1.2) CTG, 9MM, MMR,GREEN PRIMER (BLUE), M1041 (AC36)		2021	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2021	Feb 2021	100,000	0.72	N	Feb 2021	Feb 2021
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)		2015	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2016	1,089,285	0.56	Y		Oct 2012
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)		2016	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Mar 2016	Mar 2017	1,056,140	0.57	N	Aug 2015	Oct 2015
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)		2017	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Oct 2017	Oct 2018	1,116,000	0.57	Y		Oct 2016
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)		2018	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Jan 2018	Jan 2019	500,000	0.61	Y		Dec 2017
3.1.3) CTG, 9MM, MARKING, RED, M1041 (AB14)		2019	GENERAL DYNAMICS / MONTREAL, CN	C / TBD	** NO PCO **	Oct 2018	Oct 2019	1,873,015	0.63	N	Aug 2018	
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)		2015	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2016	1,089,285	0.56	Y		Oct 2012
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)		2016	CANADIAN COMMERCIAL CORPORATION / OTTAWA, CANADA	C / FFP	JMC ROCK ISLAND	Mar 2016	Mar 2016	1,000,000	0.59	N	Aug 2015	Oct 2015
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)		2017	GENERAL DYNAMICS / MONTREAL, CANADA	C / FFP	JMC ROCK ISLAND	Oct 2016	Oct 2016	1,116,000	0.57	N	Aug 2015	Oct 2016
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)		2018	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Jan 2018	Jan 2019	500,000	0.59	Y		Dec 2017

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)		2019	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	JMC ROCK ISLAND	Oct 2018	Oct 2019	1,873,015	0.63	Y		
3.1.4) CTG, 9MM MARKING, BLUE, M1041 (AB13)	✓	2020	GENERAL DYNAMICS / MONTREAL, CN	C / TBD	** NO PCO **	Oct 2019	Oct 2020	1,000,000	0.61	N		
3.1.5) CTG, 9MM BALL (A363)		2014	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2014	Sep 2014	7,875,000	0.17	Y		Oct 2013
3.1.5) CTG, 9MM BALL (A363)	✓	2014	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2014	Sep 2014	14,094,118	0.17	Y		Oct 2013
3.1.5) CTG, 9MM BALL (A363)		2015	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2015	Sep 2015	9,600,000	0.15	Y		Oct 2013
3.1.5) CTG, 9MM BALL (A363)		2016	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2016	Sep 2016	4,217,647	0.17	N	Aug 2015	Oct 2015
3.1.5) CTG, 9MM BALL (A363)	✓	2016	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2016	Sep 2016	2,347,058	0.17	N	Aug 2015	Oct 2015
3.1.5) CTG, 9MM BALL (A363)		2017	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2017	Sep 2017	7,990,000	0.18	Y		Oct 2016
3.1.5) CTG, 9MM BALL (A363)		2018	OLIN CORPORATION / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2018	Sep 2018	6,222,000	0.19	Y		Oct 2017
3.1.6) CTG, 9MM REDUCED RICOCHETTE, LOW PEN (AA16)		2015	OLIN CORP / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2015	Jul 2016	500,000	0.47	Y		Mar 2012
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)		2014	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Jun 2014	Jun 2015	3,000,000	0.85	Y		Oct 2013
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)		2015	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	1,000,000	0.87	Y		Oct 2013
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)		2016	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2016	2,497,042	0.89	Y		Oct 2015
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)		2017	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Mar 2017	Oct 2017	2,268,600	1.98	Y		Oct 2016
4.1.1) CTG, 7.62MM SHORT RANGE TRAINING (AA37)		2018	GDOTS CANADA / CANADA	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2018	1,502,400	2.22	Y		Dec 2017
4.1.2) CTG, 7.62MM, M993 AP, W/ M62 Std Tracer (AA36)	✓	2014	ALLIANT TECH / ATK	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	180,000	2.57	Y		Mar 2012
4.1.2) CTG, 7.62MM, M993 AP, W/ M62 Std Tracer (AA36)		2016	ALLIANT TECH / ATK	C / FFP	JMC ROCK ISLAND	Apr 2016	Nov 2016	700,500	0.00	Y		Mar 2013
4.1.3) CTG, 7.62MM BLANK, LINKED (A111)		2015	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	SS / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	1,600,000	0.39	Y		Mar 2013
4.1.3) CTG, 7.62MM BLANK, LINKED (A111)		2016	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	SS / FFP	JMC ROCK ISLAND	Apr 2016	Nov 2016	3,116,215	0.39	Y		Mar 2013
4.1.3) CTG, 7.62MM BLANK, LINKED (A111)		2017	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	SS / FFP	JMC ROCK ISLAND	Apr 2017	Nov 2017	3,248,000	0.39	Y		Mar 2017
4.1.3) CTG, 7.62MM BLANK, LINKED (A111)		2018	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	SS / FFP	JMC ROCK ISLAND	Apr 2018	Nov 2018	3,213,600	0.42	Y		Mar 2018
4.1.4) CTG, 7.62MM BALL LINKED (NO TRACER) (A143)		2017	TBD / TBD	C / TBD	JMC ROCK ISLAND	Dec 2016	Dec 2017	343,200	0.50	N	Aug 2015	Apr 2016
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)		2013	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Jun 2013	Jan 2014	4,135,555	0.45	Y		Oct 2012

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)	✓	2014	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	150,000	0.89	Y		Oct 2013
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)		2015	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	3,326,086	0.46	Y		Oct 2013
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)	✓	2016	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2016	Sep 2017	522,727	0.44	Y		Oct 2013
4.1.5) CTG, 7.62MM LINKED 9:1 DIM TRACER F/MK 44 (A257)		2017	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / TBD	JMC ROCK ISLAND	Mar 2017	Oct 2017	1,078,500	0.50	N	Aug 2015	Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2014	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	5,094,000	0.51	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)	✓	2014	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Jun 2014	Jan 2015	964,570	0.93	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2015	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	6,173,469	0.49	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)	✓	2015	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	1,020,408	0.49	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2016	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2016	6,095,744	0.47	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)	✓	2016	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Oct 2015	May 2016	587,234	0.47	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2017	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Oct 2016	May 2017	2,701,600	0.54	Y		Oct 2013
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2018	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2018	2,155,200	0.56	Y		Oct 2017
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2019	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Dec 2018	Jul 2019	2,564,814	0.54	Y		Dec 2018
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)	✓	2020	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Feb 2020	Sep 2020	2,000,000	0.54	N	Oct 2020	Feb 2020
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)		2021	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Feb 2021	Sep 2021	2,347,200	0.69	N	Oct 2021	Feb 2021
4.1.7) CTG, 7.62MM LNKD, BALL AND TRACER (A131)	✓	2021	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Feb 2021	Sep 2021	904,000	0.69	N	Oct 2021	Feb 2021
4.1.9) CTG 7.62MM SPECIAL BALL LONG RANGE (AB39)	✓	2020	JMC ROCK ISLAND / ROCK ISLAND, IL	C / TBD	** NO PCO **	Mar 2020	Mar 2020	460,000	0.98	N	Mar 2020	
5.1.2) CTG, 5.56MM JACKETED FRANGIBLE MK (AA40)		2014	FEDERAL CARTRIDGE / MINNESOTA	C / FFP	NSWC CRANE	Mar 2014	Feb 2015	1,108,000	0.37	Y		Mar 2011
5.1.2) CTG, 5.56MM JACKETED FRANGIBLE MK (AA40)		2015	FEDERAL CARTRIDGE / MINNESOTA	C / FFP	NSWC CRANE	Mar 2015	Feb 2016	461,631	0.41	Y		Mar 2011
5.1.3) CTG, 5.56MM BALL, CARBINE, BARRIER, MK (AB49)		2012	ATK LAKE CITY / LAKE CITY	C / FFP	NSWC CRANE	Jun 2013	Dec 2014	700,000	0.50	Y		Oct 2012

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1.3) CTG, 5.56MM BALL, CARBINE, BARRIER, MK (AB49)		2014	ATK LAKE CITY / LAKE CITY	C / FFP	NSWC CRANE	Mar 2014	Sep 2015	246,000	0.83	Y		Oct 2012
5.1.3) CTG, 5.56MM BALL, CARBINE, BARRIER, MK (AB49)		2016	ATK LAKE CITY / LAKE CITY	C / FFP	NSWC CRANE	Mar 2016	Sep 2017	670,760	0.00	Y		Oct 2013
5.1.4) CTG, 5.56MM CTG BALL B855 LKD F/SAW (A062)		2014	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2014	Aug 2014	320,000	0.35	Y		Oct 2013
5.1.4) CTG, 5.56MM CTG BALL B855 LKD F/SAW (A062)		2015	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2015	Aug 2015	400,000	0.29	Y		Oct 2013
5.1.5) CTG 5.56MM BALL (A071)	✓	2020	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Dec 2019	Dec 2019	1,001,280	0.25	N	Dec 2019	Dec 2019
5.1.6) CTG, 5.56MM, LINKED (A075)		2013	ATK Lake City Army Ammunition Plant / Lake City	C / FFP	JMC ROCK ISLAND	Jun 2013	Jan 2014	3,300,000	0.45	Y		Oct 2012
5.1.6) CTG, 5.56MM, LINKED (A075)		2016	ATK Lake City Army Ammunition Plant / Lake City	C / FFP	JMC ROCK ISLAND	Oct 2015	May 2016	1,500,800	0.22	Y		Oct 2013
5.1.7) CTG, 5.56MM BLANK (TRAINING ITEM) (A080)		2016	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2016	3,762,000	0.15	Y		Dec 2013
5.1.7) CTG, 5.56MM BLANK (TRAINING ITEM) (A080)		2018	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2018	1,069,320	0.14	Y		Dec 2017
5.1.8) CTG, 5.56MM 77 GRAIN, MK 262 MOD 0/1, LONG (AA53)		2014	BLACK HILLS AMMUNITION / RAPID CITY, SD	SS / FFP	NSWC CRANE	Jul 2014	Aug 2015	1,403,076	0.65	Y		Oct 2012
5.1.8) CTG, 5.56MM 77 GRAIN, MK 262 MOD 0/1, LONG (AA53)	✓	2014	BLACK HILLS AMMUNITION / RAPID CITY, SD	SS / FFP	NSWC CRANE	Jul 2014	Aug 2015	574,000	0.65	Y		Oct 2012
5.1.11) CTG, 5.56MM LINKED (A064)(†)		2014	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2014	Aug 2014	3,000,000	0.54	Y		Oct 2011
5.1.11) CTG, 5.56MM LINKED (A064)		2015	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2015	Aug 2015	2,240,000	0.53	Y		Oct 2011
5.1.11) CTG, 5.56MM LINKED (A064)	✓	2016	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Dec 2015	Jul 2016	208,000	0.32	Y		Oct 2011
5.1.11) CTG, 5.56MM LINKED (A064)		2017	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Dec 2016	Jul 2017	2,360,000	0.32	Y		Oct 2011
5.1.12) CTG, 5.56MM SHORT RANGE TRAINING (AB67)		2017	TBD / tbd	C / TBD	** NO PCO **	Oct 2016	Apr 2018	185,400	1.21	N		
5.1.12) CTG, 5.56MM SHORT RANGE TRAINING (AB67)		2018	TBD / tbd	C / TBD	ACC-PICATINNY, NJ	Mar 2018	Sep 2019	403,200	1.36	Y		Dec 2017
5.1.13) CTG 5.56MM BALL LFS M855A1 (AB57)		2018	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2018	Feb 2018	80,640	0.28	N	Feb 2018	Feb 2018
5.1.14) CTG 5.56MM SHORT RANGE TRAINING AMMO (AC10)		2018	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Dec 2018	Dec 2018	216,000	1.38	N	Dec 2018	Dec 2018
6.1.1) CTG. 50 CAL, LINKED BALL MK 322 MOD 1/TRAC (AC15)		2021	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2021	Feb 2021	600,000	5.40	N	Feb 2021	Feb 2021

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6.1.2) CTG, 50 CAL, LINKED, BALL MK 322/TRACER MK (AB64)		2014	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	NSWC CRANE	Mar 2014	Mar 2015	200,000	4.00	Y		Mar 2013
6.1.2) CTG, 50 CAL, LINKED, BALL MK 322/TRACER MK (AB64)		2015	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	NSWC CRANE	Oct 2014	Oct 2015	600,000	4.08	Y		Mar 2013
6.1.2) CTG, 50 CAL, LINKED, BALL MK 322/TRACER MK (AB64)		2016	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	NSWC CRANE	Mar 2016	Mar 2017	600,000	4.16	Y		Mar 2013
6.1.2) CTG, 50 CAL, LINKED, BALL MK 322/TRACER MK (AB64)		2017	GENERAL DYNAMICS / MONTREAL, CN	C / FFP	NSWC CRANE	Mar 2017	Mar 2018	200,000	4.25	Y		Mar 2013
6.1.3) CTG, CAL .50 LINKED BALL (NO TRACER) (A555)		2013	ALLIANT TECH DBA (LCAAP) / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Jun 2013	Jan 2014	853,218	2.33	Y		Oct 2012
6.1.3) CTG, CAL .50 LINKED BALL (NO TRACER) (A555)		2016	ALLIANT TECH DBA (LCAAP) - FY2016 / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2016	1,012,500	1.60	Y		Oct 2013
6.1.3) CTG, CAL .50 LINKED BALL (NO TRACER) (A555)		2018	ALLIANT TECH DBA (LCAAP) - FY2016 / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2018	224,600	1.82	Y		Dec 2017
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)		2014	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2014	Mar 2015	1,215,846	1.83	Y		Oct 2011
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)		2016	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2016	Mar 2017	903,048	1.64	Y		Oct 2013
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)		2018	ATK LAKE CITY / LAKE CITY	C / TBD	** NO PCO **	Oct 2017	Oct 2018	1,000,000	2.09	N		
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)	✓	2018	ATK LAKE CITY / LAKE CITY	C / TBD	** NO PCO **	Oct 2017	Oct 2018	495,000	2.09	N		
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)		2019	ATK LAKE CITY / LAKE CITY	C / TBD	** NO PCO **	Oct 2018	Oct 2019	220,765	1.83	N		
6.1.4) CTG, CAL .50 LINKED, BALL/TRACER (A557)		2021	ATK LAKE CITY / LAKE CITY	C / TBD	** NO PCO **	Oct 2020	Oct 2021	300,000	2.65	N		
6.1.5) CTG, CAL .50 APL MK 211 MIULTI PURPOSE (A606)		2015	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2016	50,160	14.55	Y		Oct 2013
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2013	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Jun 2013	Jun 2014	1,462,564	1.95	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2014	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2014	Mar 2015	2,810,660	1.97	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2014	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2014	Mar 2015	1,107,910	1.97	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2015	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2016	1,089,418	1.89	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2015	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2015	Mar 2016	264,550	1.89	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2016	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Oct 2015	Oct 2016	214,606	1.78	Y		Oct 2011

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6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2016	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2016	Mar 2017	267,978	1.78	Y		Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2017	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Oct 2016	Oct 2017	298,200	1.89	N	Aug 2015	Oct 2011
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2018	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2018	Mar 2019	1,000,000	2.20	Y		Dec 2017
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2018	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2018	Mar 2019	437,000	2.12	Y		Dec 2017
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2019	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Jan 2019	Jan 2020	1,004,545	1.98	Y		Jan 2019
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2020	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Feb 2020	Feb 2021	882,000	2.12	N	Jan 2021	Feb 2020
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)		2021	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Feb 2021	Feb 2022	500,000	2.61	N	Jan 2022	Feb 2021
6.1.6) CTG, CAL .50 LINKED, M8 API/M20 API-T (A576)	✓	2021	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Feb 2021	Feb 2022	383,141	2.61	N	Jan 2022	Feb 2021
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2013	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Jun 2013	Jan 2014	1,182,352	1.19	Y		Oct 2012
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2014	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	1,378,000	1.15	Y		Oct 2012
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2015	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2015	Oct 2015	812,121	1.32	Y		Oct 2012
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2016	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2016	Oct 2016	1,109,277	1.20	Y		Oct 2012
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2017	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Oct 2016	May 2017	2,658,800	1.26	Y		Oct 2012
6.1.7) CTG, CAL .50 LINKED, BLANK, M1A1 (A598)		2018	ATK LAKE CITY / LAKE CITY	C / FFP	JMC ROCK ISLAND	Mar 2018	Oct 2018	1,200,000	1.54	Y		Oct 2017
6.1.8) CTG CAL .50 LINKED, 4 SLAP M903 (A518)		2021	JMC ROCK ISLAND / ROCK ISLAND, IL	MIPR	JMC ROCK ISLAND	Feb 2021	Feb 2021	100,000	14.65	N	Feb 2021	Feb 2021
8.1.1) CTG, CAL .300 MATCH (A191)		2014	OLIN CORP / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	240,000	1.25	Y		Mar 2013
8.1.1) CTG, CAL .300 MATCH (A191)	✓	2014	OLIN CORP / ILLINOIS	C / FFP	JMC ROCK ISLAND	Mar 2014	Oct 2014	480,000	1.25	Y		Mar 2013
8.1.1) CTG, CAL .300 MATCH (A191)		2016	OLIN CORP / ILLINOIS	C / FFP	JMC ROCK ISLAND	Dec 2015	Jul 2016	144,363	1.07	Y		Mar 2013
8.1.2) CTG, CAL 45 MATCH (A483)		2018	UNKNOWN / UNKNOWN	C / TBD	JMC ROCK ISLAND	Apr 2018	Oct 2019	200,000	0.34	Y		Oct 2017

(†) indicates the presence of a P-21

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Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2013												Fiscal Year 2014												BALANCE
										Calendar Year 2013												Calendar Year 2014									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5.1.11) CTG, 5.56MM LINKED (A064)																															
	1	2014	NAVY	3.000	.000	3.000																		A -	-	-	-	-	3.000		.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2015												Fiscal Year 2016												BALANCE
										Calendar Year 2015												Calendar Year 2016									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5.1.11) CTG, 5.56MM LINKED (A064)																															
	1	2014	NAVY	3.000	3.000	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare (NSW)

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
							Calendar Year 2017												Calendar Year 2018												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5.1.11) CTG, 5.56MM LINKED (A064)																															
	1	2014	NAVY	3.000	3.000	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare (NSW)

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5.1.11) CTG, 5.56MM LINKED (A064)																															
	1	2014	NAVY	3.000	3.000	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare (NSW)

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5.1.11) CTG, 5.56MM LINKED (A064)																															
	1	2014	NAVY	3.000	3.000	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0335 / Small Arms & Lndg Party Ammo	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare (NSW)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ALLIANT TECH DBA (LCAAP) - INDEPENDENCE, MO		11,500	39,300	6	6	5	11	6	6	7	13

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0340 / Pyrotechnic and Demolition

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	106.941	12.738	11.158	9.766	0.505	10.271	9.753	9.961	9.897	10.133	-	180.852
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	106.941	12.738	11.158	9.766	0.505	10.271	9.753	9.961	9.897	10.133	-	180.852
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**106.941**	**12.738**	**11.158**	**9.766**	**0.505**	**10.271**	**9.753**	**9.961**	**9.897**	**10.133**	**-**	**180.852**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Pyrotechnics and demolition materials consists of smoke and flare signals for safety of life, simulators, remote and time delay firing devices, safe and arming devices, demolition charges, blasting caps, detonating cord, time fuze, cable cutters, Improvised Explosive Device (IED) disrupters, cartridge actuated devices, shape charges, and shock test charges. These materials are used by all Navy platforms and Navy Mobile Construction Battalions, mobile diving and salvage units, cargo handling and port groups, naval security groups, fleet composite operational readiness groups, and Explosive Ordnance Disposal (EOD) groups, mobile units, detachments, and teams.

Program procures pyrotechnics and demolition materials for all active naval vessels, construction battalions, mobile diving and salvage units, cargo handling and port groups, naval security groups, and explosive ordnance disposal groups/mobile units/detachments/teams. Pyrotechnics are used for training, combat exercises, submarine rescue and personnel search, and rescue operations. These items consist of illumination, signaling, identification, and location devices using flares or smoke as the primary signaling agent. Demolitions consist of explosive devices and accessories and are required for fleet units to perform training functions and operations/requirements. Fleet requirements are based upon CNO approved allowance lists or for special needs on a case by case basis and worldwide fleet expenditure. This program also provides materials to support the ship shock test program.

Naval Special Warfare pyrotechnics and demolition materials consists of smoke and flare signals for safety of life, combat effects simulators, remote and time delay firing devices, safe and arming devices, blasting machines, demolition charges, blasting caps, detonating cord, time fuse, cable cutters, cartridge actuated devices, shape charges, and shock tube type detonators. The demolition materials are used by the Naval Special Warfare Center for initial demolition training and qualification, by SEAL platoons for constructing breaching charges, for construction of obstacles or barriers, clearance of obstacles or barriers, cable cutting, coral and channel clearance, material and equipment destruction, diversions, combat effects simulation charges, improvised incendiary charges, and defensive anti-vehicle and anti-personnel charges. Pyrotechnics are used by Naval Special Warfare for emergency or distress signaling, combat effects simulation, target marking, de-confliction, escalation of force warning, and distraction.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Navy	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.645	11.075	9.677	0.505	10.182	9.662	9.869	9.803	10.037
NR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.093	0.083	0.089	-	0.089	0.091	0.092	0.094	0.096

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0340 / Pyrotechnic and Demolition	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.738	11.158	9.766	0.505	10.271	9.753	9.961	9.897	10.133

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0340 / Pyrotechnic and Demolition

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) / ($ M)*	Quantity / Total Cost *(Each) / ($ M)*	Quantity / Total Cost *(Each) / ($ M)*	Quantity / Total Cost *(Each) / ($ M)*	Quantity / Total Cost *(Each) / ($ M)*	Quantity / Total Cost *(Each) / ($ M)*
P-5	1 / Integrated Warfare Systems	P-5a			- / 98.302	- / 10.085	- / 9.737	- / 8.147	- / 0.000	- / 8.147
P-5	2 / Naval Special Warfare	P-5a			- / 8.639	- / 2.653	- / 1.421	- / 1.619	- / 0.505	- / 2.124
P-40	**Total Gross/Weapon System Cost**				**- / 106.941**	**- / 12.738**	**- / 11.158**	**- / 9.766**	**- / 0.505**	**- / 10.271**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 baseline funding procures pyrotechnics to support surface, air, ground, and underwater Navy requirements for training, combat exercises, submarine rescue, personnel search and rescue operations, and demolition consisting of explosive devices and accessories to support fleet units performing training and operational exercises.

Baseline funding also provides Product Improvement Programs to resolve obsolescence issues in demolition items, emergency signaling devices and submarine signals. Baseline program funds renovation of radio firing devices, remote timing device battery replacement, supply components for demolition items, and Production Engineering and Gauge requirements for pyrotechnics and demolition materials.

FY 2021 baseline funding (81AJ) procures pyrotechnics, demolition devices and accessories to support Naval Special Warfare (NSW) requirements for initial qualification, pre-deployment, and sustainment training, combat exercises, and testing by US Navy SEALs, Special Boat Teams, NSW Task Units/Groups and other NSW support groups. Baseline program funds are also necessary for production engineering as required by DoD and Navy safety and acquisition regulations. Due to funding constraint and contract minimums, FY 2020 procurement is planned for pyrotechnic type hand grenade simulators.

OCO:
FY 2021 OCO funding will procure the MK164 Detonator, which remains a high-demand pyrotechnics and demolitions (PyroDemo) end item and is currently the most critical PyroDemo end item in the Naval Special Warfare inventory. This funding will replace critical combat losses and help restore the War Reserve to the required level.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	98.302	10.085	9.737	8.147	0.000	8.147
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	98.302	10.085	9.737	8.147	0.000	8.147
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**98.302**	**10.085**	**9.737**	**8.147**	**0.000**	**8.147**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - AJ100 HARDWARE Cost																		
Recurring Cost																		
1.1.1) TRANSPORTATION ACCOUNT CODE (N97)	-	-	0.226	-	-	0.010	-	-	0.010	-	-	0.010	-	-	0.000	-	-	0.010
1.1.2) TRANSPORTATION ACCOUNT CODE (N96)	-	-	1.180	-	-	0.138	-	-	0.176	-	-	0.176	-	-	0.000	-	-	0.176
1.1.3) TRANSPORTATION ACCOUNT CODE (N95)	-	-	0.105	-	-	0.014	-	-	0.014	-	-	0.014	-	-	0.000	-	-	0.014
Subtotal: Recurring Cost	-	-	*1.511*	-	-	*0.162*	-	-	*0.200*	-	-	*0.200*	-	-	*0.000*	-	-	*0.200*
Subtotal: Hardware - AJ100 HARDWARE Cost	**-**	**-**	***1.511***	**-**	**-**	***0.162***	**-**	**-**	***0.200***	**-**	**-**	***0.200***	**-**	**-**	***0.000***	**-**	**-**	***0.200***
Hardware - AJ100 PE/QA SMCA Cost																		
Recurring Cost																		
2.1.1) PE/QA SMCA	-	-	3.751	-	-	0.077	-	-	0.371	-	-	0.200	-	-	0.000	-	-	0.200
Subtotal: Recurring Cost	-	-	*3.751*	-	-	*0.077*	-	-	*0.371*	-	-	*0.200*	-	-	*0.000*	-	-	*0.200*
Subtotal: Hardware - AJ100 PE/QA SMCA Cost	**-**	**-**	***3.751***	**-**	**-**	***0.077***	**-**	**-**	***0.371***	**-**	**-**	***0.200***	**-**	**-**	***0.000***	**-**	**-**	***0.200***
Hardware - AJ100 CUTTERS & CARTRIDGES Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)(†)	186.85	20,830	3.892	190.89	6,480	1.237	186.39	5,000	0.932	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) CUTTER, MK33, NON-ELECTRIC IN (SS43)	997.27	1,100	1.097	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.3) CARTRIDGE, IMPULSE, MK 192 MOD 0 (MD54)(†)	118.79	4,470	0.531	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*5.520*	-	-	*1.237*	-	-	*0.932*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AJ100 CUTTERS & CARTRIDGES Cost	**-**	**-**	***5.520***	**-**	**-**	***1.237***	**-**	**-**	***0.932***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AJ100 DET CORDS, CAPS & FUZES Cost																		
Recurring Cost																		
4.1.1) CAP, BLASTING, ELEC, INERT (MP16)	24.78	27,120	0.672	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.2) CAP, BLASTING, ELECTRIC MK 18 MOD 0 (DWHH)	41.03	112,950	4.634	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.3) SQUIB, ELECTRIC, MK 20 MOD 2 (MP40)(†)	69.27	52,434	3.632	-	-	0.000	83.89	14,700	1.233	-	-	0.000	-	-	0.000	-	-	0.000
4.1.4) CAP, BLASTIN, NON-ELEC, INERT (M097)	25.43	48,400	1.231	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.5) CORD, DETONATING, PRIMACORD (M456)(†)	0.72	3,807,000	2.732	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.6) DETONATOR, DEL, 17MS, MK 158 (DWEL)	34.50	6,840	0.236	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.7) DETONATOR, DEL, 25MS, MK 160 MOD 0, 12FT (DWEN)(†)	-	-	0.000	-	-	0.000	-	-	0.000	50.20	5,000	0.251	-	-	0.000	50.20	5,000	0.251
4.1.8) DETONATOR, NON-ELEC, MK 121 (MP17)	254.31	8,002	2.035	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 1 / Integrated Warfare Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
4.1.9) EOD REFILL KIT-LMNS (DWGJ)(†)	838.33	600	0.503	-	-	0.000	682.00	1,000	0.682	-	-	0.000	-	-	0.000	-	-	0.000
4.1.10) FUZE, BLASTING, TIME (M670)	0.49	1,356,000	0.665	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
4.1.11) IGNITIER, TIME BLASTING FUZE (MN08)	5.35	43,956	0.235	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*16.575*	-	-	*0.000*	-	-	*1.915*	-	-	*0.251*	-	-	*0.000*	-	-	*0.251*
Subtotal: Hardware - AJ100 DET CORDS, CAPS & FUZES Cost	**-**	**-**	***16.575***	**-**	**-**	***0.000***	**-**	**-**	***1.915***	**-**	**-**	***0.251***	**-**	**-**	***0.000***	**-**	**-**	***0.251***
Hardware - MINE CHARGES & CHARGE CUTTERS Cost																		
Recurring Cost																		
5.1.1) CHG KIT, DML, MK 75 (MW84)	1,649.37	2,159	3.561	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.2) CHG, DML, BLK, COMP C-4, 1.25 (M023)(†)	23.87	115,370	2.754	30.85	23,500	0.725	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.3) CHG, DML, XPL ROLL, 11FT (M985)(†)	69.95	10,894	0.762	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.4) CHG, DML, XPL ROLL, 25 FT (M981)(†)	29.62	20,495	0.607	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.5) CHG, DML, XPL ROLL, 38 FT, 14 (M980)(†)	14.89	23,712	0.353	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.6) CUTTER, POWDER ACTUATED MK 23/1 (MN70)	333.33	1,842	0.614	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.7) VALVE, EXPLOSIVE ELECTRIC, MK 2 MOD 1 (MW02)(†)	461.19	7,266	3.351	-	-	0.000	482.55	1,948	0.940	-	-	0.000	-	-	0.000	-	-	0.000
5.1.8) CUTTER, POWDER ACTUATED MK 24/1 (MN71)(†)	992.00	1,250	1.240	-	-	0.000	-	-	0.000	1,385.26	1,259	1.744	-	-	0.000	1,385.26	1,259	1.744
5.1.9) CHG, DEML, MK149 MOD0 LOW HAZ FLEX LIN SHP (MM54)(†)	75.43	11,030	0.832	-	-	0.000	-	-	0.000	97.26	730	0.071	-	-	0.000	97.26	730	0.071

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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.1.10) Chg, Demo, Mk 145 Low Hazard Flex (MM53)	63.50	20,440	1.298	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.11) CHARGE, DEMO SHEET, FLEXIBLE, 0.043 THICK (M994)(†)	9.72	43,624	0.424	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.12) MK147 BATTERY (CWBD)(†)	-	-	0.000	-	-	0.000	271.54	140	0.038	-	-	0.000	-	-	0.000	-	-	0.000
5.1.13) CHG, DEML, MK144 MOD 0 LOW HAZ FLEX (MM52)	45.48	16,800	0.764	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*16.560*	-	-	*0.725*	-	-	*0.978*	-	-	*1.815*	-	-	*0.000*	-	-	*1.815*
Subtotal: Hardware - MINE CHARGES & CHARGE CUTTERS Cost	**-**	**-**	***16.560***	**-**	**-**	***0.725***	**-**	**-**	***0.978***	**-**	**-**	***1.815***	**-**	**-**	***0.000***	**-**	**-**	***1.815***
Hardware - AJ100 N97 UNDERSEA WARFARE Cost																		
Recurring Cost																		
6.1.1) SIG, SMK ILLUM, MAR, MK 141, GREEN (LA26)(†)	1,995.50	1,110	2.215	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.2) SIG, SMK ILLUM, MAR, MK 144/118, YELLOW (LA27)(†)	5,162.95	718	3.707	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.3) MARKER, LOCATION, SUB, MK 140, RED (LA28)(†)	4,120.48	664	2.736	3,718.47	80	0.297	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.4) CTG, IMPULSE, MK148 (M663)(†)	4,360.00	100	0.436	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.5) EXPLOSIVE BOLT CARTRIDGE (MC91)(†)	3,320.00	150	0.498	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.6) SWITCH, SQUIB ACTUATED, MK112 (M853)	803.28	122	0.098	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.7) CTG, IMPULSE, MK 235 (MW97)(†)	-	-	0.000	3,847.90	100	0.385	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*9.690*	-	-	*0.682*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - AJ100 N97 UNDERSEA WARFARE Cost	**-**	**-**	***9.690***	**-**	**-**	***0.682***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AJ100 SHOCK TEST CHARGES Cost																		
Recurring Cost																		
7.1.1) CHARGE, SHOCK TEST, 60 LB (XW65)(†)	1,421.33	966	1.373	1,460.27	667	0.974	-	-	0.000	2,026.90	500	1.013	-	-	0.000	2,026.90	500	1.013
Subtotal: Recurring Cost	-	-	*1.373*	-	-	*0.974*	-	-	*0.000*	-	-	*1.013*	-	-	*0.000*	-	-	*1.013*
Subtotal: Hardware - AJ100 SHOCK TEST CHARGES Cost	**-**	**-**	***1.373***	**-**	**-**	***0.974***	**-**	**-**	***0.000***	**-**	**-**	***1.013***	**-**	**-**	***0.000***	**-**	**-**	***1.013***
Hardware - AJ100 SIGNALS Cost																		
Recurring Cost																		
8.1.1) SIGNAL ILLUMINATION, MK80/2 RED STAR (L258)(†)	13.09	89,509	1.172	-	-	0.000	11.96	22,680	0.271	-	-	0.000	-	-	0.000	-	-	0.000
8.1.2) SIG, SMK ILLUM, MAR, MK 124/1, DISTRESS (LA60)(†)	82.33	43,396	3.573	119.68	14,436	1.728	124.36	6,410	0.797	-	-	0.000	-	-	0.000	-	-	0.000
8.1.3) SIG KIT MK 189, MOD 0(†)	-	-	0.000	-	-	0.000	313.00	1,000	0.313	319.26	200	0.064	-	-	0.000	319.26	200	0.064
8.1.4) SIGNAL KIT, PERS DISTRESS, MK79 (L118)(†)	-	-	0.000	69.61	6,426	0.447	-	-	0.000	96.73	3,000	0.290	-	-	0.000	96.73	3,000	0.290
Subtotal: Recurring Cost	-	-	*4.745*	-	-	*2.175*	-	-	*1.381*	-	-	*0.354*	-	-	*0.000*	-	-	*0.354*
Subtotal: Hardware - AJ100 SIGNALS Cost	**-**	**-**	***4.745***	**-**	**-**	***2.175***	**-**	**-**	***1.381***	**-**	**-**	***0.354***	**-**	**-**	***0.000***	**-**	**-**	***0.354***
Hardware - TRAINING DEVICES Cost																		
Recurring Cost																		
9.1.1) SIM, HAND GRENADE, M116 (L601)	15.53	46,350	0.720	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.720*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - TRAINING DEVICES Cost	**-**	**-**	***0.720***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - (AJ850) PRODUCT IMPROVEMENT Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
10.1.1) PRODUCT IMPROVEMENT (N96) Surface Warfare	-	-	6.437	-	-	0.163	-	-	0.050	-	-	0.190	-	-	0.000	-	-	0.190
10.1.2) PRODUCT IMPROVEMENT (N97) Undersea Warfare (1)	-	-	1.519	-	-	0.533	-	-	1.242	-	-	1.235	-	-	0.000	-	-	1.235
Subtotal: Recurring Cost	-	-	*7.956*	-	-	*0.696*	-	-	*1.292*	-	-	*1.425*	-	-	*0.000*	-	-	*1.425*
Subtotal: Hardware - (AJ850) PRODUCT IMPROVEMENT Cost	**-**	**-**	***7.956***	**-**	**-**	***0.696***	**-**	**-**	***1.292***	**-**	**-**	***1.425***	**-**	**-**	***0.000***	**-**	**-**	***1.425***
Hardware - (AJ893) RENOVATION COMPONENTS Cost																		
Recurring Cost																		
11.1.1) RENOVATION COMPONENTS	-	-	1.818	-	-	0.745	-	-	0.150	-	-	0.150	-	-	0.000	-	-	0.150
Subtotal: Recurring Cost	-	-	*1.818*	-	-	*0.745*	-	-	*0.150*	-	-	*0.150*	-	-	*0.000*	-	-	*0.150*
Subtotal: Hardware - (AJ893) RENOVATION COMPONENTS Cost	**-**	**-**	***1.818***	**-**	**-**	***0.745***	**-**	**-**	***0.150***	**-**	**-**	***0.150***	**-**	**-**	***0.000***	**-**	**-**	***0.150***
Hardware - (AJ894) GAUGE REQUIREMENTS Cost																		
Recurring Cost																		
12.1.1) GAUGE REQUIREMENTS	-	-	0.119	-	-	0.000	-	-	0.005	-	-	0.005	-	-	0.000	-	-	0.005
Subtotal: Recurring Cost	-	-	*0.119*	-	-	*0.000*	-	-	*0.005*	-	-	*0.005*	-	-	*0.000*	-	-	*0.005*
Subtotal: Hardware - (AJ894) GAUGE REQUIREMENTS Cost	**-**	**-**	***0.119***	**-**	**-**	***0.000***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	***0.000***	**-**	**-**	***0.005***
Hardware - (AJ895) NON-STANDARD Cost																		
Recurring Cost																		
13.1.1) NON-STANDARD	-	-	1.000	-	-	0.152	-	-	0.205	-	-	0.204	-	-	0.000	-	-	0.204
Subtotal: Recurring Cost	-	-	*1.000*	-	-	*0.152*	-	-	*0.205*	-	-	*0.204*	-	-	*0.000*	-	-	*0.204*
Subtotal: Hardware - (AJ895) NON-STANDARD Cost	**-**	**-**	***1.000***	**-**	**-**	***0.152***	**-**	**-**	***0.205***	**-**	**-**	***0.204***	**-**	**-**	***0.000***	**-**	**-**	***0.204***
Support - (AJ830) PRODUCTION ENGINEERING Cost																		
14.1) PRODUCTION ENGINEERING (N95) Expeditionary Warfare	-	-	0.147	-	-	0.038	-	-	0.035	-	-	0.044	-	-	0.000	-	-	0.044

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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

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Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
14.2) PRODUCTION ENGINEERING (N96) Surface Warfare	-	-	20.447	-	-	1.796	-	-	1.633	-	-	1.748	-	-	0.000	-	-	1.748
14.3) PRODUCTION ENGINEERING (N97) Undersea Warfare	-	-	6.370	-	-	0.626	-	-	0.640	-	-	0.738	-	-	0.000	-	-	0.738
Subtotal: Support - (AJ830) PRODUCTION ENGINEERING Cost	***-***	***-***	***26.964***	***-***	***-***	***2.460***	***-***	***-***	***2.308***	***-***	***-***	***2.530***	***-***	***-***	***0.000***	***-***	***-***	***2.530***
Gross/Weapon System Cost	**-**	**-**	**98.302**	**-**	**-**	**10.085**	**-**	**-**	**9.737**	**-**	**-**	**8.147**	**-**	**-**	**0.000**	**-**	**-**	**8.147**

Remarks:

[Hardware] AJ100: HARDWARE - Procures all up rounds and conduct acceptance tests. Costs associated with Transportation Account Code (TAC) are for first destination of delivery of production items. Unit costs and quantities will be adjusted during the year of execution.

[Hardware] AJ850: PRODUCT IMPROVEMENT - Provides engineering services and related efforts by government activities, the producing contractor or manufacturing installation to extend the useful military life of an item or to improve the item within the current performance envelope.

[Hardware] AJ893: RENOVATION COMPONENTS - The items purchased with funds identified for renovation components will be used to upgrade unserviceable rounds to ready-for-issue condition. The rounds to be renovated will be those with the lowest asset readiness positions.

[Hardware] AJ894: GAUGE REQUIREMENTS - Procure the gauges and test equipments necessary to check critical dimensions/parameters of ammunition items and their parts. This is to assure proper mating of parts and sub-assemblies, assure correct interfacing between the ammunition and guns, and proper ammunition performance.

[Hardware] AJ895: NON-STANDARD - The non-standard line is to support procurement of ammunition training aids and initial procurements of required non-type classified munition items.

[Support Cost] AJ830: PRODUCTION ENGINEERING - Provides for production engineering services to support new acquisition and in production ammunition.

(†) indicates the presence of a P-5a

Footnotes:

(1) FY2021 Product Improvement Program addresses submarine signal obsolescence and manufacturability to decrease manufacturing time and complexity. This will be proven out through qualification and safety testing certifying the safety and reliability of the design for Navy fielding.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)		2016	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Jun 2016	Sep 2019	1,295	176.06	Y		Oct 2015
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)	✓	2016	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Apr 2016	Sep 2019	3,145	176.47	Y		Oct 2015
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)		2017	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Jul 2017	Dec 2019	5,076	175.48	Y		Oct 2016
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)		2018	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Aug 2018	Jun 2020	2,364	226.31	Y		Oct 2017
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)		2019	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Apr 2019	Oct 2020	6,480	190.89	Y		Oct 2018
3.1.1) CTG, 50 CAL BLANK, ELEC, MK20 (SS01)	✓	2020	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Mar 2020	Sep 2022	5,000	186.39	Y		Oct 2018
3.1.3) CARTRIDGE, IMPULSE, MK 192 MOD 0 (MD54)		2018	CARTRIDGE ACTUATED DEVICES INC. / FAIRFIELD, NJ.	C / FFP	NAVSUP	Oct 2018	Mar 2020	4,470	118.80	Y		Aug 2018
4.1.3) SQUIB, ELECTRIC, MK 20 MOD 2 (MP40)	✓	2020	STRESAU LABS. / SPOONER. WI	C / FFP	NSWC CRANE	Mar 2020	Sep 2021	14,700	83.89	Y		Jun 2018
4.1.5) CORD, DETONATING, PRIMACORD (M456)		2018	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2018	May 2019	952,000	0.83	Y		Mar 2016
4.1.7) DETONATOR, DEL, 25MS, MK 160 MOD 0, 12FT (DWEN)		2021	TBD / TBD	C / FFP	JMC ROCK ISLAND	Mar 2021	Apr 2023	5,000	50.20	N	Sep 2020	Jan 2021
4.1.9) EOD REFILL KIT-LMNS (DWGJ)	✓	2020	TBD / TBD	C / FFP	NSWC CRANE	Mar 2020	Sep 2021	1,000	682.00	Y		Jul 2019
5.1.2) CHG, DML, BLK, COMP C-4, 1.25 (M023)	✓	2017	AMERICAN ORDANCE / MIDDLETOWN, IA	SS / FFP	JMC ROCK ISLAND	Apr 2017	Sep 2018	20,580	27.30	Y		May 2014
5.1.2) CHG, DML, BLK, COMP C-4, 1.25 (M023)		2019	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NO PCO	Feb 2019	Aug 2019	23,500	30.85	Y		May 2014
5.1.3) CHG, DML, XPL ROLL, 11FT (M985)		2016	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Dec 2019	4,140	96.21	Y		Nov 2015
5.1.3) CHG, DML, XPL ROLL, 11FT (M985)		2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Dec 2019	6,754	53.82	Y		Nov 2015
5.1.4) CHG, DML, XPL ROLL, 25 FT (M981)		2016	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Oct 2019	6,120	47.32	Y		Nov 2015
5.1.4) CHG, DML, XPL ROLL, 25 FT (M981)		2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Nov 2019	7,675	22.02	Y		Nov 2015
5.1.4) CHG, DML, XPL ROLL, 25 FT (M981)	✓	2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Jan 2020	6,700	22.02	Y		Nov 2015
5.1.5) CHG, DML, XPL ROLL, 38 FT, 14 (M980)	✓	2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Dec 2020	13,680	14.27	Y		Nov 2015
5.1.5) CHG, DML, XPL ROLL, 38 FT, 14 (M980)		2018	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Mar 2018	Mar 2022	10,032	15.71	Y		Nov 2015

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1.7) VALVE, EXPLOSIVE ELECTRIC, MK 2 MOD 1 (MW02)		2018	CARTRIDGE ACTUATED DEVICES INC. / FAIRFIELD, NJ.	C / FFP	NSWC CRANE	Jul 2018	Dec 2019	2,240	456.25	Y		Dec 2014
5.1.7) VALVE, EXPLOSIVE ELECTRIC, MK 2 MOD 1 (MW02)	✓	2020	CARTRIDGE ACTUATED DEVICES INC / FAIRFIELD, NJ	C / FFP	NSWC CRANE	Mar 2020	Sep 2021	1,948	482.55	Y		Dec 2014
5.1.8) CUTTER, POWDER ACTUATED MK 24/1 (MN71)		2021	TBD / TBD	MIPR	NO PCO	Mar 2021	Mar 2023	1,259	1,385.26	N	Sep 2020	Jan 2021
5.1.9) CHG, DEML, MK149 MOD0 LOW HAZ FLEX LIN SHP (MM54)		2021	TBD / TBD	C / FFP	NSWC CRANE	Mar 2021	Mar 2023	730	97.26	Y		Sep 2019
5.1.11) CHARGE, DEMO SHEET, FLEXIBLE, 0.043 THICK (M994)		2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	Jun 2020	26,600	8.43	Y		Nov 2015
5.1.11) CHARGE, DEMO SHEET, FLEXIBLE, 0.043 THICK (M994)	✓	2017	ENSIGN BICKFORD / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jul 2017	May 2020	11,856	8.43	Y		Nov 2015
5.1.12) MK147 BATTERY (CWBD)	✓	2020	TBD / TBD	C / FFP	NSWC CRANE	Mar 2020	Sep 2021	140	271.54	Y		Oct 2019
6.1.1) SIG, SMK ILLUM, MAR, MK 141, GREEN (LA26)		2011	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	NSWC CRANE	Sep 2011	Sep 2020	181	2,574.59	Y		Mar 2011
6.1.1) SIG, SMK ILLUM, MAR, MK 141, GREEN (LA26)		2013	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	NSWC CRANE	Sep 2013	Sep 2020	790	1,540.51	Y		Mar 2011
6.1.2) SIG, SMK ILLUM, MAR, MK 144/118, YELLOW (LA27)		2015	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Jun 2015	Oct 2019	428	3,471.96	Y		Oct 2014
6.1.2) SIG, SMK ILLUM, MAR, MK 144/118, YELLOW (LA27)		2016	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Jul 2016	Oct 2019	290	2,486.21	Y		Oct 2015
6.1.3) MARKER, LOCATION, SUB, MK 140, RED (LA28)		2018	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Aug 2018	Dec 2020	332	3,546.65	Y		Oct 2017
6.1.3) MARKER, LOCATION, SUB, MK 140, RED (LA28)		2019	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IND	MIPR	NO PCO	Aug 2019	Sep 2020	80	3,718.47	Y		Oct 2018
6.1.4) CTG, IMPULSE, MK148 (M663)		2016	PACIFIC SCIENTIFIC / HOLLISTER, CA	SS / FFP	NAVSUP	Sep 2016	Apr 2019	100	4,360.00	Y		Feb 2016
6.1.5) EXPLOSIVE BOLT CARTRIDGE (MC91)		2017	CARTRIDGE ACTUATED DEVICES INC / FAIRFIELD, NJ	C / FFP	NAVSUP	Jul 2017	Apr 2020	150	3,317.05	Y		Dec 2016
6.1.7) CTG, IMPULSE, MK 235 (MW97)		2019	SECURITY SIGNALS INC / CORDOVA, TN	SS / FFP	NAVSUP	Jul 2019	Jan 2021	100	3,847.90	Y		Nov 2018
7.1.1) CHARGE, SHOCK TEST, 60 LB (XW65)		2019	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NO PCO	Jun 2019	Sep 2020	667	1,460.27	Y		Oct 2018
7.1.1) CHARGE, SHOCK TEST, 60 LB (XW65)		2021	TBD / TBD	MIPR	NO PCO	Mar 2021	Mar 2023	500	2,026.90	Y		Oct 2020
8.1.1) SIGNAL ILLUMINATION, MK80/2 RED STAR (L258)		2018	SECURITY SIGNALS INC / CORDOVA, TN	C / FFP	NSWC CRANE	Aug 2018	Jul 2021	37,909	8.28	Y		Mar 2015
8.1.1) SIGNAL ILLUMINATION, MK80/2 RED STAR (L258)	✓	2020	SECURITY SIGNALS INC / CORDOVA, TN	C / FFP	NSWC CRANE	Mar 2020	Sep 2021	22,680	11.96	Y		Mar 2015

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
8.1.2) SIG, SMK ILLUM, MAR, MK 124/1, DISTRESS (LA60)		2016	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	NSWC CRANE	Jun 2016	Apr 2019	25,612	73.11	Y		Mar 2011
8.1.2) SIG, SMK ILLUM, MAR, MK 124/1, DISTRESS (LA60)		2018	COMBINED SYSTEMS INC. / JAMESTOWN, NY	C / FFP	JMC ROCK ISLAND	Sep 2018	Nov 2020	5,688	140.65	Y		Mar 2018
8.1.2) SIG, SMK ILLUM, MAR, MK 124/1, DISTRESS (LA60)		2019	COMBINED SYSTEMS INC. / JAMESTOWN, NY	C / FFP	JMC ROCK ISLAND	Apr 2019	May 2021	14,436	119.68	Y		Mar 2018
8.1.2) SIG, SMK ILLUM, MAR, MK 124/1, DISTRESS (LA60)	✓	2020	COMBINED SYSTEMS INC. / JAMESTOWN, NY	C / FFP	JMC ROCK ISLAND	Mar 2020	Sep 2021	6,410	124.36	Y		Apr 2018
8.1.3) SIG KIT MK 189, MOD 0	✓	2020	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NO PCO	Mar 2020	Sep 2021	1,000	313.00	Y		Apr 2018
8.1.3) SIG KIT MK 189, MOD 0		2021	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NO PCO	Mar 2021	Mar 2022	200	319.26	Y		Apr 2018
8.1.4) SIGNAL KIT, PERS DISTRESS, MK79 (L118)		2019	SECURITY SIGNALS INC / CORDOVA, TN	C / FFP	NSWC CRANE	May 2019	Oct 2020	6,426	69.61	Y		Mar 2015
8.1.4) SIGNAL KIT, PERS DISTRESS, MK79 (L118)		2021	SECURITY SIGNALS INC / CORDOVA, TN	C / FFP	NSWC CRANE	Jan 2021	Jul 2022	3,000	96.73	Y		Mar 2015

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	8.639	2.653	1.421	1.619	0.505	2.124
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.639	2.653	1.421	1.619	0.505	2.124
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.639**	**2.653**	**1.421**	**1.619**	**0.505**	**2.124**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - AJNSW PE/QA SMCA Cost																		
Recurring Cost																		
1.1.1) AJNSW PE/QA SMCA	-	-	0.220	-	-	0.040	-	-	0.077	-	-	0.327	-	-	0.048	-	-	0.375
Subtotal: Recurring Cost	-	-	*0.220*	-	-	*0.040*	-	-	*0.077*	-	-	*0.327*	-	-	*0.048*	-	-	*0.375*
Subtotal: Hardware - AJNSW PE/QA SMCA Cost	**-**	**-**	***0.220***	**-**	**-**	***0.040***	**-**	**-**	***0.077***	**-**	**-**	***0.327***	**-**	**-**	***0.048***	**-**	**-**	***0.375***
Hardware - AJNSW DET, CORDS, CAPS, FUZES Cost																		
Recurring Cost																		
2.1.2) DETONATOR, W IN-LINE INITIATOR 40FT (MP29)(†)	-	-	0.000	137.70	7,680	1.058	141.00	3,218	0.454	-	-	0.000	143.82	3,177	0.457	143.82	3,177	0.457
2.1.3) CAP, BLASTING, ELECTRIC MK 18 MOD 0 (DWHH)(†)	-	-	0.000	53.67	6,000	0.322	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.4) CHG, FLEX LINEAR, LOW - HAZARD (ECT) (MM24)(†) (2)	22.65	16,997	0.385	-	-	0.000	-	-	0.000	24.74	20,000	0.495	-	-	0.000	24.74	20,000	0.495
2.1.5) CHG, BOOSTER, 20 GM, MK 140 (MM30)	3.70	30,000	0.111	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.1.6) IGNITER, TIME BLASTING FUZE (MN08)(†)	5.62	306,760	1.724	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 2 / Naval Special Warfare
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.7) CONNECTOR DET CORD PLASTIC (MW49)(†)	-	-	0.000	-	-	0.000	0.47	42,000	0.020	0.50	50,000	0.025	-	-	0.000	0.50	50,000	0.025
Subtotal: Recurring Cost	-	-	*2.220*	-	-	*1.380*	-	-	*0.474*	-	-	*0.520*	-	-	*0.457*	-	-	*0.977*
Subtotal: Hardware - AJNSW DET, CORDS, CAPS, FUZES Cost	**-**	**-**	***2.220***	**-**	**-**	***1.380***	**-**	**-**	***0.474***	**-**	**-**	***0.520***	**-**	**-**	***0.457***	**-**	**-**	***0.977***
Hardware - AJNSW MINE CHARGERS & CHARGE CUTTERS Cost																		
Recurring Cost																		
3.1.1) CHG, DEMO, EXPLOSIVE SHEET, .333 (M986)(†)	175.63	7,516	1.320	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) CHG, DEMO, EXPLOSIVE SHEET, .083 (M980)(†) (3)	15.71	25,843	0.406	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.3) CHG, DEMO, EXPLOSIVE SHEET, .125 (M981)(†) (4)	27.19	15,190	0.413	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
3.1.4) CHG, DEMO, 40LB BLK Cratering (M039)(†)	-	-	0.000	1,989.43	200	0.398	-	-	0.000	1,326.63	500	0.663	-	-	0.000	1,326.63	500	0.663
3.1.5) CHG, DML, BLK, COMP C-4, 1.25 (M023)(†)	26.10	45,360	1.184	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*3.323*	-	-	*0.398*	-	-	*0.000*	-	-	*0.663*	-	-	*0.000*	-	-	*0.663*
Subtotal: Hardware - AJNSW MINE CHARGERS & CHARGE CUTTERS Cost	**-**	**-**	***3.323***	**-**	**-**	***0.398***	**-**	**-**	***0.000***	**-**	**-**	***0.663***	**-**	**-**	***0.000***	**-**	**-**	***0.663***
Hardware - AJNSW TRAINING DEVICES Cost																		
Recurring Cost																		
4.1.1) SIM, HAND GRENADE, M116 (L601)(†)	17.19	33,450	0.575	18.00	40,800	0.734	16.95	44,250	0.750	-	-	0.000	-	-	0.000	-	-	0.000
4.1.2) FLARE, SURFACE TRIP M49 (L495)	40.60	5,000	0.203	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.778*	-	-	*0.734*	-	-	*0.750*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 2 / Naval Special Warfare
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - AJNSW TRAINING DEVICES Cost	-	-	***0.778***	-	-	***0.734***	-	-	***0.750***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***
Hardware - AJNSW SIGNALS Cost																		
Recurring Cost																		
5.1.1) SIGNAL DIVERS AUDIBLE RECALL (3W92)(†)	115.09	921	0.106	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.2) SIM, PROJ, GROUND BURST M115A2 (L594)(†)	16.77	21,700	0.364	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.470*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AJNSW SIGNALS Cost	-	-	***0.470***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***
Support - (NS830) PRODUCTION ENGINEERING Cost																		
6.1) PRODUCTION ENGINEERING	-	-	1.628	-	-	0.101	-	-	0.120	-	-	0.109	-	-	0.000	-	-	0.109
Subtotal: Support - (NS830) PRODUCTION ENGINEERING Cost	-	-	***1.628***	-	-	***0.101***	-	-	***0.120***	-	-	***0.109***	-	-	***0.000***	-	-	***0.109***
Gross/Weapon System Cost	-	-	**8.639**	-	-	**2.653**	-	-	**1.421**	-	-	**1.619**	-	-	**0.505**	-	-	**2.124**

Remarks:

[Hardware] AJNSW: NAVAL SPECIAL WARFARE - Procures components, load and assemble complete rounds and conduct acceptance tests. Costs associated with Transportation Account Code (TAC) are for first destination of delivery of production items for Naval Special Warfare service common items. Unit costs and quantities will be adjusted during the year of execution.

[Support Cost] NS830:PRODUCTION ENGINEERING - Provides for production engineering services.

(†) indicates the presence of a P-5a

Footnotes:

(2) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys. The unit cost will fluctuate depending on the total procurement.

(3) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys. The unit cost will fluctuate depending on the total procurement.

(4) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys. The unit cost will fluctuate depending on the total procurement.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0340 / Pyrotechnic and Demolition	Item Number / Title [DODIC]: 2 / Naval Special Warfare

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.2) DETONATOR, W IN-LINE INITIATOR 40FT (MP29)	✓	2019	New MFG - Name / New MFG - Loc	C / TBD	NSWC CRANE	Jan 2019	Jan 2019	7,680	137.70	Y		
2.1.2) DETONATOR, W IN-LINE INITIATOR 40FT (MP29)	✓	2020	New MFG - Name / New MFG - Loc	C / TBD	NSWC CR	Jan 2020	Jan 2020	3,218	141.00	N	Jan 2020	
2.1.2) DETONATOR, W IN-LINE INITIATOR 40FT (MP29)	✓	2021	New MFG - Name / New MFG - Loc	C / TBD	NSWC CR	Jan 2021	Jan 2021	3,177	143.82	N	Jan 2021	
2.1.3) CAP, BLASTING, ELECTRIC MK 18 MOD 0 (DWHH)	✓	2019	STRESAU LABS. / SPOONER. WI	C / TBD	NSWC CRANE	Jan 2019	Nov 2019	6,000	53.67	Y		
2.1.4) CHG, FLEX LINEAR, LOW - HAZARD (ECT) (MM24)		2018	TBD / TBD	C / TBD	JMC ROCK ISLAND	Oct 2017	Oct 2017	5,477	22.64	N		
2.1.4) CHG, FLEX LINEAR, LOW - HAZARD (ECT) (MM24)	✓	2018	TBD / TBD	C / TBD	JMC ROCK ISLAND	Oct 2017	Oct 2017	11,520	22.64	N		
2.1.6) IGNITER, TIME BLASTING FUZE (MN08)		2014	MAST TECHNOLOGY / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Apr 2015	Feb 2016	106,405	5.62	Y		Oct 2013
2.1.6) IGNITER, TIME BLASTING FUZE (MN08)		2015	MAST TECHNOLOGY / INDEPENDENCE, MO	C / FFP	JMC ROCK ISLAND	Apr 2015	Feb 2016	200,355	5.62	Y		Oct 2014
2.1.7) CONNECTOR DET CORD PLASTIC (MW49)	✓	2020	TBD / TBD	C / TBD	** NO PCO **	Dec 2019	Dec 2019	42,000	0.47	N	Dec 2019	
3.1.1) CHG, DEMO, EXPLOSIVE SHEET, .333 (M986)	✓	2015	ENSIGN BICKFORD 2 / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jun 2015	Oct 2016	5,185	135.00	Y		Dec 2013
3.1.1) CHG, DEMO, EXPLOSIVE SHEET, .333 (M986)	✓	2016	ENSIGN BICKFORD 2 / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Jun 2016	Oct 2017	2,331	265.98	Y		Dec 2013
3.1.2) CHG, DEMO, EXPLOSIVE SHEET, .083 (M980)		2018	TBD / TBD	C / TBD	JMC ROCK ISLAND	Oct 2017	Oct 2017	9,739	15.71	N		
3.1.2) CHG, DEMO, EXPLOSIVE SHEET, .083 (M980)	✓	2018	TBD / TBD	C / TBD	JMC ROCK ISLAND	Oct 2017	Oct 2017	16,104	15.71	N		
3.1.3) CHG, DEMO, EXPLOSIVE SHEET, .125 (M981)		2018	ENSIGN BICKFORD 2 / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Mar 2018	Sep 2019	5,990	27.21	Y		Nov 2015
3.1.3) CHG, DEMO, EXPLOSIVE SHEET, .125 (M981)	✓	2018	ENSIGN BICKFORD 2 / SIMSBURY, CT	C / FFP	JMC ROCK ISLAND	Mar 2018	Sep 2019	9,200	27.21	Y		Nov 2015
3.1.4) CHG, DEMO, 40LB BLK Cratering (M039)	✓	2019	AMERICAN ORDANCE / MIDDLETOWN, IA	C / TBD	JMC ROCK ISLAND	Jun 2019	Jun 2021	200	1,989.43	N	Jun 2021	Mar 2019
3.1.5) CHG, DML, BLK, COMP C-4, 1.25 (M023)		2013	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	JMC ROCK ISLAND	Dec 2014	Dec 2016	24,552	21.22	Y		Oct 2009
3.1.5) CHG, DML, BLK, COMP C-4, 1.25 (M023)		2015	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	JMC ROCK ISLAND	Dec 2015	Dec 2016	9,738	39.84	Y		Dec 2013
4.1.1) SIM, HAND GRENADE, M116 (L601)		2017	PYROTECHNIQUE BY GRUCCI, INC / RADFORD, VA	C / FFP	JMC ROCK ISLAND	Oct 2016	Apr 2018	33,450	17.19	N		
4.1.1) SIM, HAND GRENADE, M116 (L601)		2019	UNKNOWN / UNKNOWN	C / TBD	** NO PCO **	Oct 2018	Apr 2020	40,800	18.00	N		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0340 / Pyrotechnic and Demolition	**Item Number / Title [DODIC]:** 2 / Naval Special Warfare

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty *(Each)*	Unit Cost *($)*	Specs Avail Now?	Date Revision Available	RFP Issue Date
5.1.1) SIGNAL DIVERS AUDIBLE RECALL (3W92)		2016	TBD / TBD	C / TBD	NSWC CRANE	Jun 2017	Jun 2017	921	115.00	N		Jul 2016
5.1.2) SIM, PROJ, GROUND BURST M115A2 (L594)		2016	PYROTECHNIQUE GRUCCI / RADFORD, VA	C / FFP	JMC ROCK ISLAND	Mar 2016	Jun 2017	21,700	16.77	Y		Dec 2015

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0400 / Ammunition less than $5 million

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	91.260	1.106	1.061	2.115	0.000	2.115	1.598	1.604	1.637	1.669	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	91.260	1.106	1.061	2.115	0.000	2.115	1.598	1.604	1.637	1.669	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**91.260**	**1.106**	**1.061**	**2.115**	**0.000**	**2.115**	**1.598**	**1.604**	**1.637**	**1.669**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program provides funding for ammunition with value less than $5 million.

Marine Location Markers include both air-launched and hand-launched pyrotechnic devices. The Mk-25 and Mk-58 units are used in a variety of situations to include Search and Rescue operations, Man Overboard drills and Target Marking in support of Fleet Operations and Readiness.

The LUU-19 Aircraft Parachute Flares (APFs) are used for near infrared nighttime illumination of surface areas in Search and Combat Operations. No procurements currently planned through the FYDP due to sufficient inventory levels.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 01: Proc Ammo, Navy / BSA 1: Navy Ammunition	**P-1 Line Item Number / Title:** 0400 / Ammunition less than $5 million

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Ammunition less than $5 million	P-5a, P-21			- / 91.260	- / 1.106	- / 1.061	- / 2.115	- / -	- / 2.115
P-40	**Total Gross/Weapon System Cost**				**- / 91.260**	**- / 1.106**	**- / 1.061**	**- / 2.115**	**- / 0.000**	**- / 2.115**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 funding is required to procure Mk-25 and Mk-58 Marine Location Markers (MLMs) to enable day and night Search and Rescue operations and target marking from aircraft and surface combatants.

Funding is required to address production support to include product improvements needed for components designed as well as Production Engineering Support, Integrated Logistics Support, Reliability Life (i.e. Safety and Product Improvement Program, Quality Assurance and Acceptance Testing).

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0400 / Ammunition less than $5 million	**Aggregated Items Title:** Ammunition less than $5 million

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) HARDWARE																				
1.1) (A5012) MK-25 MARINE LOCATION MARKERS (1)(†)	A		531.81	3,584	1.906	-	-	-	437.00	1,032	0.451	445.74	3,349	1.493	-	-	-	445.74	3,349	1.493
1.2) (A5010) MK-58 MARINE LOCATION MARKERS (2)(†)	A		660.83	45,791	30.260	410.00	717	0.294	-	-	-	-	-	-	-	-	-	-	-	-
1.3) (A5011) LUU-19 PARAFLARES	A		1,561.69	25,393	39.656	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) (A5894) Miscellaneous	A		-	-	0.534	-	-	0.070	-	-	0.063	-	-	0.064	-	-	-	-	-	0.064
Subtotal: 1) HARDWARE			**-**	**-**	***72.356***	**-**	**-**	***0.364***	**-**	**-**	***0.514***	**-**	**-**	***1.557***	**-**	**-**	**-**	**-**	**-**	***1.557***
2) PRODUCTION SUPPORT																				
2.1) (A5821) MARINE LOCATION MARKERS	A		-	-	18.401	-	-	0.742	-	-	0.547	-	-	0.558	-	-	-	-	-	0.558
2.2) (A5820) LUU-19 Paraflares Support	A		-	-	0.503	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) PRODUCTION SUPPORT			**-**	**-**	***18.904***	**-**	**-**	***0.742***	**-**	**-**	***0.547***	**-**	**-**	***0.558***	**-**	**-**	**-**	**-**	**-**	***0.558***
Total			**-**	**-**	**91.260**	**-**	**-**	**1.106**	**-**	**-**	**1.061**	**-**	**-**	**2.115**	**-**	**-**	**-**	**-**	**-**	**2.115**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Footnotes:

(1) (A5012) Mk-25 MARINE LOCATION MARKERS: Mk-25 unit price reflects actual competitively awarded contract cost. FY 2021 through FY 2025 funding reflects procurement of items every other year to meet the minimum buy requirement.

(2) (A5010) MK-58 MARINE LOCATION MARKERS: MK-58 Unit Cost reflects actual competitively awarded contract cost. FY 2022 through FY 2025 funding reflects procurement of items every other year to meet the minimum buy requirement.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	P-1 Line Item Number / Title: 0400 / Ammunition less than $5 million	Aggregated Items: Ammunition less than $5 million

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) HARDWARE												
1.1) (A5012) MK-25 MARINE LOCATION MARKERS (1)(†)		2018 (3)	HFI PYROTECHNICS INC / Ontario, Canada	C / FFP	Crane, IN	Apr 2019	Jan 2020	3,584	531.81	Y		Aug 2018
1.1) (A5012) MK-25 MARINE LOCATION MARKERS (1)(†)		2020	HFI PYROTECHNICS INC / Ontario, Canada	C / FFP	Crane, IN	Mar 2020	Dec 2020	1,032	437.00	Y		Aug 2018
1.1) (A5012) MK-25 MARINE LOCATION MARKERS (1)(†)		2021	HFI PYROTECHNICS INC / Ontario, Canada	C / FFP	Crane, IN	Mar 2021	Dec 2021	3,349	445.74	Y		Aug 2018
1.2) (A5010) MK-58 MARINE LOCATION MARKERS (2)(†)		2017 (4)	HFI PYROTECHNICS INC / Ontario, Canada	C / FFP	Crane, IN	Jun 2019	Mar 2020	4,555	410.00	Y		Nov 2018
1.2) (A5010) MK-58 MARINE LOCATION MARKERS (2)(†)		2019	HFI PYROTECHNICS INC / Ontario, Canada	C / FFP	Crane, IN	Jun 2019	Mar 2020	717	410.00	Y		Nov 2018

(†) indicates the presence of a P-21

Footnotes:

(3) MK-25 awarded a new 5 year IDIQ contract in April 2019.

(4) Mk-58 awarded a new 5 year IDIQ contract in June 2019.

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0400 / Ammunition less than $5 million

Aggregated Items: Ammunition less than $5 million

Items (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019												Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) HARDWARE																															
1.1) (A5012) MK-25 MARINE LOCATION MARKERS (1)																															
	20	2018	NAVY	3,584	0	3,584							A -	-	-	-	-	-	-	-	-	399	398	398	398	398	398	398	398	399	0
	20	2020	NAVY	1,032	0	1,032																		A -	-	-	-	-	-	-	1,032
	20	2021	NAVY	3,349	0	3,349																									3,349
1.2) (A5010) MK-58 MARINE LOCATION MARKERS (2)																															
Prior Years Deliveries: 41236																															
	21	2017	NAVY	4,555	0	4,555									A -	-	-	-	-	-	-	-	-	507	506	506	506	506	506	506	1,012
	21	2019	NAVY	717	0	717									A -	-	-	-	-	-	-	-	-	80	80	80	80	80	80	79	158
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1

P-1 Line Item Number / Title: 0400 / Ammunition less than $5 million

Aggregated Items: Ammunition less than $5 million

Items (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) HARDWARE																															
1.1) (A5012) MK-25 MARINE LOCATION MARKERS [1]																															
	20	2018	NAVY	3,584	3,584	0																									0
	20	2020	NAVY	1,032	0	1,032	-	-	115	115	115	115	115	115	114	114	114														0
	20	2021	NAVY	3,349	0	3,349						A -	-	-	-	-	-	-	-	-	373	372	372	372	372	372	372	372	372		0
1.2) (A5010) MK-58 MARINE LOCATION MARKERS [2]																															
Prior Years Deliveries: 41236																															
	21	2017	NAVY	4,555	3,543	1,012	506	506																							0
	21	2019	NAVY	717	559	158	79	79																							0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 01 / 1	**P-1 Line Item Number / Title:** 0400 / Ammunition less than $5 million	**Aggregated Items:** Ammunition less than $5 million

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	HFI PYROTECHNICS INC - Ontario, Canada	1,201	4,000	15,000	0	0	17	17	0	10	9	19
2	HFI PYROTECHNICS INC - Ontario, Canada	1,201	4,000	20,000	0	0	17	17	0	0	9	9

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1085 / Mortars

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	49.618	20.534	57.473	46.781	0.000	46.781	57.558	33.084	49.744	54.843	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	49.618	20.534	57.473	46.781	0.000	46.781	57.558	33.084	49.744	54.843	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**49.618**	**20.534**	**57.473**	**46.781**	**0.000**	**46.781**	**57.558**	**33.084**	**49.744**	**54.843**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Mortar Cartridges includes all 60mm mortar cartridges and 81mm mortar cartridges which consist of high explosive, smoke, illumination and full range training practice rounds. The 60mm mortar cartridges are fired from the M224 lightweight mortar system to provide close-in indirect fire support of group troops at ranges of approximately 70 to 3,500 meters. The 81mm mortar cartridges are fired from the M252 medium weight mortar system to provide long-range indirect fire support to infantry units at ranges of approximately 100 to 6,000 meters.

FY 2021 funding totals include $46.781M for Base and $0.0M for Overseas Contingency Operations (OCO).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1085 / Mortars

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	1 / 1085 Mortars	P-5a, P-21			- / 49.618	- / 20.534	- / 57.473	- / 46.781	- / 0.000	- / 46.781
P-40	**Total Gross/Weapon System Cost**				**- / 49.618**	**- / 20.534**	**- / 57.473**	**- / 46.781**	**- / 0.000**	**- / 46.781**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $46.781M

FY 2021 baseline funding will support procurement of mortars to include 60mm Full Range Training Practice Cartridges (DODIC BA15), 81mm Full Range Practice Cartridges (FRPC) (DODIC C875), and 81mm High Explosive Mortars (DODIC CA66), in support of baseline training munitions requirements for lightweight and medium mortar systems.

The budget decrease of $10.692M from FY 2020 to FY 2021 is due to the reduction of the Total Munitions Requirement for DODICs 81mm HE Fuze (CA66), 60mm Target Practice (BA15), and 81mm Practice (C875) ammunition.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	49.618	20.534	57.473	46.781	0.000	46.781
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	49.618	20.534	57.473	46.781	0.000	46.781
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**49.618**	**20.534**	**57.473**	**46.781**	**0.000**	**46.781**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - BA15 CARTRIDGE, 60MM FULL RANGE PRACTICE Cost																		
Recurring Cost																		
1.1.1) BA15 LOAD, ASSEMBLE AND PACK (LAP)(†) (1)	18.45	125,293	2.312	18.53	17,619	0.326	19.43	38,417	0.746	19.94	36,897	0.736	-	-	-	19.94	36,897	0.736
1.1.2) BA15 FUZE PRACTICE M775(†)	19.92	129,052	2.571	19.92	18,148	0.362	21.62	39,570	0.856	22.05	38,004	0.838	-	-	-	22.05	38,004	0.838
1.1.3) BA15 SHELL BODY 60MM FRPC(†)	36.59	129,052	4.722	36.59	18,148	0.664	37.93	39,570	1.501	38.69	38,004	1.470	-	-	-	38.69	38,004	1.470
1.1.4) BA15 M702 IGNITION CARTRIDGE(†) (2)	14.25	129,052	1.839	14.25	18,148	0.259	18.12	39,570	0.717	16.70	38,004	0.635	-	-	-	16.70	38,004	0.635
1.1.5) BA15 PROPELLANT CHARGE M235(†)	12.42	516,207	6.411	14.46	72,590	1.050	14.50	158,278	2.295	14.79	152,015	2.248	-	-	-	14.79	152,015	2.248
1.1.6) BA15 FIN ASSEMBLY M27(†)	7.95	114,700	0.912	7.10	18,148	0.129	7.55	39,569	0.299	7.69	38,004	0.292	-	-	-	7.69	38,004	0.292
1.1.7) BA15 PRODUCTION ENGINEERING	-	-	0.845	-	-	0.535	-	-	0.409	-	-	0.207	-	-	-	-	-	0.207
1.1.8) BA15 QUALITY ASSURANCE	-	-	0.415	-	-	0.299	-	-	0.073	-	-	0.270	-	-	-	-	-	0.270
1.1.9) BA15 ACCEPTANCE TESTING	-	-	0.591	-	-	0.146	-	-	0.149	-	-	0.120	-	-	-	-	-	0.120

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Recurring Cost	-	-	*20.618*	-	-	*3.770*	-	-	*7.045*	-	-	*6.816*	-	-	-	-	-	*6.816*
Subtotal: Hardware - BA15 CARTRIDGE, 60MM FULL RANGE PRACTICE Cost	**-**	**-**	***20.618***	**-**	**-**	***3.770***	**-**	**-**	***7.045***	**-**	**-**	***6.816***	**-**	**-**	**-**	**-**	**-**	***6.816***
Hardware - CA63 CTG MORTAR 81MM HE FRAG Cost																		
Recurring Cost																		
2.1.1) CA63 LOAD, ASSEMBLE AND PACK (LAP)(†)	-	-	-	82.01	21,423	1.757	-	-	-	-	-	-	-	-	-	-	-	-
2.1.2) CA63 FUZE PD, M783(†)	-	-	-	211.14	22,066	4.659	-	-	-	-	-	-	-	-	-	-	-	-
2.1.3) CA63 SHELL BODY, 81MM HE(†)	-	-	-	50.99	22,066	1.125	-	-	-	-	-	-	-	-	-	-	-	-
2.1.4) CA63 IGN CTG M299(†)	-	-	-	14.91	22,066	0.329	-	-	-	-	-	-	-	-	-	-	-	-
2.1.5) CA63 CHG PROP 81MM XM658(†)	-	-	-	12.89	88,263	1.138	-	-	-	-	-	-	-	-	-	-	-	-
2.1.6) CA63 FIN MORTAR CTG M24(†)	-	-	-	16.45	22,066	0.363	-	-	-	-	-	-	-	-	-	-	-	-
2.1.7) CA63 PBXW-14 BULK EXPLOSIVE(†)	-	-	-	85.74	2,571	0.220	-	-	-	-	-	-	-	-	-	-	-	-
2.1.8) CA63 EXPLOSIVE FILL IMX-104(†)	-	-	-	20.23	89,977	1.820	-	-	-	-	-	-	-	-	-	-	-	-
2.1.9) CA63 PRODUCTION ENGINEERING	-	-	-	-	-	0.919	-	-	-	-	-	-	-	-	-	-	-	-
2.1.10) CA63 ACCEPTANCE TESTING	-	-	-	-	-	0.420	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*12.750*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - CA63 CTG MORTAR 81MM HE FRAG Cost	**-**	**-**	**-**	**-**	**-**	***12.750***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware - CA66 CTG MORTAR 81MM HE FRAG Cost																		
Recurring Cost																		
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP)(†) (3)	-	-	-	-	-	-	332.10	52,476	17.427	339.70	38,008	12.911	-	-	-	339.70	38,008	12.911

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.1.2) CA66 FUZE MO, M734A1(†) (4)	-	-	-	-	-	-	280.62	54,050	15.168	312.12	39,148	12.219	-	-	-	312.12	39,148	12.219
3.1.3) CA66 SHELL BODY, 81MM HE(†)	-	-	-	-	-	-	83.23	54,050	4.499	84.89	39,148	3.323	-	-	-	84.89	39,148	3.323
3.1.4) CA66 IGN CTG M299(†)	-	-	-	-	-	-	15.51	54,050	0.838	15.82	39,148	0.619	-	-	-	15.82	39,148	0.619
3.1.5) CA66 CHG PROP 81MM XM658(†)	-	-	-	-	-	-	13.52	216,201	2.923	13.78	156,593	2.158	-	-	-	13.78	156,593	2.158
3.1.6) CA66 FIN MORTAR CTG M24(†)	-	-	-	-	-	-	18.50	54,050	1.000	18.87	39,148	0.739	-	-	-	18.87	39,148	0.739
3.1.7) CA66 BULK EXPLOSIVE(†) (5)	-	-	-	-	-	-	70.74	6,297	0.445	89.20	4,561	0.407	-	-	-	89.20	4,561	0.407
3.1.8) CA66 EXPLOSIVE FILL IMX-104(†) (6)	-	-	-	-	-	-	22.78	220,399	5.021	24.39	159,634	3.893	-	-	-	24.39	159,634	3.893
3.1.9) CA66 PRODUCTION ENGINEERING	-	-	-	-	-	-	-	-	0.609	-	-	0.884	-	-	-	-	-	0.884
3.1.10) CA66 ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.500	-	-	0.822	-	-	-	-	-	0.822
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*48.430*	-	-	*37.975*	-	-	-	-	-	*37.975*
Subtotal: Hardware - CA66 CTG MORTAR 81MM HE FRAG Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***48.430***	**-**	**-**	***37.975***	**-**	**-**	**-**	**-**	**-**	***37.975***
Hardware - C875 CTG MORTAR 81MM FRPC Cost																		
Recurring Cost																		
4.1.1) C875 LOAD, ASSEMBLE AND PACK(†) (7)	41.61	149,416	6.217	39.96	19,158	0.765	43.88	8,863	0.389	45.70	8,639	0.395	-	-	-	45.70	8,639	0.395
4.1.2) C875 FUZE PRACTICE, M751(†)	19.92	153,898	3.066	19.92	19,733	0.393	20.72	9,129	0.189	21.13	9,822	0.208	-	-	-	21.13	9,822	0.208
4.1.3) C875 SHELL BODY, 81MM FRPC(†)	43.99	153,898	6.770	43.99	19,733	0.868	45.76	9,129	0.418	46.68	8,898	0.415	-	-	-	46.68	8,898	0.415
4.1.4) C875 IGN CTG M299(†)	14.91	153,898	2.295	14.91	19,733	0.294	15.51	9,129	0.142	15.82	8,898	0.141	-	-	-	15.82	8,898	0.141
4.1.5) C875 CHG PROP 81MM M220(†)	13.00	615,594	8.003	12.89	78,931	1.017	13.51	36,516	0.493	13.78	35,593	0.490	-	-	-	13.78	35,593	0.490

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
4.1.6) C875 FIN MORTAR CTG M24(†)	14.80	153,898	2.278	14.50	19,733	0.286	18.50	9,129	0.169	18.87	8,898	0.168	-	-	-	18.87	8,898	0.168
4.1.7) C875 PRODUCTION ENGINEERING	-	-	0.151	-	-	0.170	-	-	0.150	-	-	0.124	-	-	-	-	-	0.124
4.1.8) C875 ACCEPTANCE TESTING	-	-	0.220	-	-	0.220	-	-	0.049	-	-	0.048	-	-	-	-	-	0.048
Subtotal: Recurring Cost	-	-	*29.000*	-	-	*4.013*	-	-	*1.999*	-	-	*1.989*	-	-	-	-	-	*1.989*
Subtotal: Hardware - C875 CTG MORTAR 81MM FRPC Cost	**-**	**-**	***29.000***	**-**	**-**	***4.013***	**-**	**-**	***1.999***	**-**	**-**	***1.989***	**-**	**-**	**-**	**-**	**-**	***1.989***
Gross/Weapon System Cost	**-**	**-**	**49.618**	**-**	**-**	**20.534**	**-**	**-**	**57.473**	**-**	**-**	**46.781**	**-**	**-**	**0.000**	**-**	**-**	**46.781**

(†) indicates the presence of a P-5a

Footnotes:

(1) Increase due to inflation plus the add on of Radford Army Ammunition Plant (RFAAP) Performance Work Statement (PWS) costs. PWS costs for RFAAP are higher for FY 2021 than FY 2020.

(2) Price decrease due to change in supplier in FY 2021.

(3) Increase due to inflation plus the add on of Radford Army Ammunition Plant (RFAAP) Performance Work Statement (PWS) costs. PWS costs for RFAAP are higher for FY 2021 than FY 2020.

(4) Increased price due to new contract. The FY 2020 unit price is an estimate provided by U. S. Army Single Manager Conventional Ammunition, (SMCA).

(5) Increased price due to new contract. The FY 2020 unit price is an estimate provided by U. S. Army Single Manager Conventional Ammunition, (SMCA).

(6) Increase based on new contract pricing on the Holston Army Ammunition Plant use with the expectation that the PWS OFF-SET costs for these products at Holston would increase.

(7) Increase due to inflation plus the add on of Radford Army Ammunition Plant (RFAAP) Performance Work Statement (PWS) costs. PWS costs for RFAAP are higher for FY 2021 than FY 2020.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) BA15 LOAD, ASSEMBLE AND PACK (LAP)		2018	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2018	Jan 2020	125,293	18.45	Y		
1.1.1) BA15 LOAD, ASSEMBLE AND PACK (LAP)		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jan 2021	17,619	18.53	Y		
1.1.1) BA15 LOAD, ASSEMBLE AND PACK (LAP)		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2020	May 2022	38,417	19.43	Y		
1.1.1) BA15 LOAD, ASSEMBLE AND PACK (LAP)		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	May 2023	36,897	19.94	Y		
1.1.2) BA15 FUZE PRACTICE M775		2018	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2018	Jul 2019	129,052	19.92	Y		
1.1.2) BA15 FUZE PRACTICE M775		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2019	Jun 2020	18,148	19.92	Y		
1.1.2) BA15 FUZE PRACTICE M775		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	39,570	21.62	Y		
1.1.2) BA15 FUZE PRACTICE M775		2021	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	38,004	22.05	Y		
1.1.3) BA15 SHELL BODY 60MM FRPC		2018	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2018	Aug 2019	129,052	36.59	Y		
1.1.3) BA15 SHELL BODY 60MM FRPC		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	18,148	36.59	Y		
1.1.3) BA15 SHELL BODY 60MM FRPC		2020	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	39,570	37.93	Y		
1.1.3) BA15 SHELL BODY 60MM FRPC		2021	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	38,004	38.69	Y		
1.1.4) BA15 M702 IGNITION CARTRIDGE		2018	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2018	Oct 2019	129,052	14.25	Y		
1.1.4) BA15 M702 IGNITION CARTRIDGE		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	18,148	14.25	Y		
1.1.4) BA15 M702 IGNITION CARTRIDGE		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	39,570	18.12	Y		
1.1.4) BA15 M702 IGNITION CARTRIDGE		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	38,004	16.70	Y		
1.1.5) BA15 PROPELLANT CHARGE M235		2018	GENERAL DYNAMICS OTS / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2018	Dec 2019	516,207	12.42	Y		
1.1.5) BA15 PROPELLANT CHARGE M235		2019	GENERAL DYNAMICS OTS / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	72,590	14.46	Y		
1.1.5) BA15 PROPELLANT CHARGE M235		2020 (8)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	158,278	14.50	Y		
1.1.5) BA15 PROPELLANT CHARGE M235		2021 (9)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	152,015	14.79	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.6) BA15 FIN ASSEMBLY M27		2018	Flexible Concepts / Elkhart, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2018	Nov 2019	114,700	7.95	Y		
1.1.6) BA15 FIN ASSEMBLY M27		2019	Flexible Concepts / Elkhart, IN	C / IDIQ	ROCK ISLAND, ARSENAL IL	Dec 2018	Jun 2020	18,148	7.10	Y		
1.1.6) BA15 FIN ASSEMBLY M27		2020 (10)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	39,569	7.55	Y		
1.1.6) BA15 FIN ASSEMBLY M27		2021 (11)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	38,004	7.69	Y		
2.1.1) CA63 LOAD, ASSEMBLE AND PACK (LAP)		2019	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2019	Mar 2022	21,423	82.01	Y		
2.1.2) CA63 FUZE PD, M783		2019	L-3 FUZING & ORDNANCE SYSTEMS INC / CINCINATTI, OH	C / FFP	PICATINNY ARSENAL, NJ	May 2019	Nov 2021	22,066	211.14	Y		
2.1.3) CA63 SHELL BODY, 81MM HE		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	22,066	50.99	Y		
2.1.4) CA63 IGN CTG M299		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jun 2020	22,066	14.91	Y		
2.1.5) CA63 CHG PROP 81MM XM658		2019	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Aug 2020	88,263	12.89	Y		
2.1.6) CA63 FIN MORTAR CTG M24		2019	Flexible Concepts / Elkhart, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2018	Jun 2020	22,066	16.45	Y		
2.1.7) CA63 PBXW-14 BULK EXPLOSIVE		2019	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2019	Mar 2021	2,571	85.74	Y		
2.1.8) CA63 EXPLOSIVE FILL IMX-104		2019	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2019	Nov 2021	89,977	20.23	Y		
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP)(†)		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2020	May 2023	52,476	332.10	Y		
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP)(†)		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	May 2024	38,008	339.70	Y		
3.1.2) CA66 FUZE MO, M734A1(†)		2020	L-3 FUZING & ORDNANCE SYSTEMS INC / CINCINATTI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2022	54,050	280.62	Y		
3.1.2) CA66 FUZE MO, M734A1(†)		2021	L-3 FUZING & ORDNANCE SYSTEMS INC / CINCINATTI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	39,148	312.12	Y		
3.1.3) CA66 SHELL BODY, 81MM HE		2020	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	54,050	83.23	Y		
3.1.3) CA66 SHELL BODY, 81MM HE		2021	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	39,148	84.89	Y		
3.1.4) CA66 IGN CTG M299		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	54,050	15.51	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.4) CA66 IGN CTG M299		2021	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	39,148	15.82	Y		
3.1.5) CA66 CHG PROP 81MM XM658		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	216,201	13.52	Y		
3.1.5) CA66 CHG PROP 81MM XM658		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	156,593	13.78	Y		
3.1.6) CA66 FIN MORTAR CTG M24		2020 (12)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	54,050	18.50	Y		
3.1.6) CA66 FIN MORTAR CTG M24		2021 (13)	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	39,148	18.87	Y		
3.1.7) CA66 BULK EXPLOSIVE		2020	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	6,297	70.74	Y		
3.1.7) CA66 BULK EXPLOSIVE		2021	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	4,561	89.20	Y		
3.1.8) CA66 EXPLOSIVE FILL IMX-104(†)		2020	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2022	220,399	22.78	Y		
3.1.8) CA66 EXPLOSIVE FILL IMX-104(†)		2021	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2023	159,634	24.39	Y		
4.1.1) C875 LOAD, ASSEMBLE AND PACK		2018	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2018	Jun 2020	149,416	41.61	Y		
4.1.1) C875 LOAD, ASSEMBLE AND PACK		2019	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jan 2021	9,536	39.96	Y		
4.1.1) C875 LOAD, ASSEMBLE AND PACK	✓	2019	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2019	May 2021	9,622	39.96	Y		
4.1.1) C875 LOAD, ASSEMBLE AND PACK		2020	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2020	May 2022	8,863	43.88	Y		
4.1.1) C875 LOAD, ASSEMBLE AND PACK		2021	DAY &ZIMMERMANN, INC. / PARSONS, KS	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	May 2023	8,639	45.70	Y		
4.1.2) C875 FUZE PRACTICE, M751		2018	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Aug 2018	Feb 2020	153,898	19.92	Y		
4.1.2) C875 FUZE PRACTICE, M751		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	9,822	19.92	Y		
4.1.2) C875 FUZE PRACTICE, M751	✓	2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	9,911	19.92	Y		
4.1.2) C875 FUZE PRACTICE, M751		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	9,129	20.72	Y		
4.1.2) C875 FUZE PRACTICE, M751		2021	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	9,822	21.13	Y		

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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.1.3) C875 SHELL BODY, 81MM FRPC		2018	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jun 2018	Jan 2020	153,898	43.99	Y		
4.1.3) C875 SHELL BODY, 81MM FRPC		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	9,822	43.99	Y		
4.1.3) C875 SHELL BODY, 81MM FRPC	✓	2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2018	Jun 2020	9,911	43.99	Y		
4.1.3) C875 SHELL BODY, 81MM FRPC		2020	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	9,129	45.76	Y		
4.1.3) C875 SHELL BODY, 81MM FRPC		2021	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	8,898	46.68	Y		
4.1.4) C875 IGN CTG M299		2018	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2018	Dec 2019	153,898	14.91	Y		
4.1.4) C875 IGN CTG M299		2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	9,822	14.91	Y		
4.1.4) C875 IGN CTG M299	✓	2019	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	9,911	14.91	Y		
4.1.4) C875 IGN CTG M299		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Sep 2021	9,129	15.51	Y		
4.1.4) C875 IGN CTG M299		2021	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	8,898	15.82	Y		
4.1.5) C875 CHG PROP 81MM M220		2018	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2018	Mar 2020	615,594	13.00	Y		
4.1.5) C875 CHG PROP 81MM M220		2019	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	39,288	12.89	Y		
4.1.5) C875 CHG PROP 81MM M220	✓	2019	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2019	Jul 2020	39,643	12.89	Y		
4.1.5) C875 CHG PROP 81MM M220		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	36,516	13.51	Y		
4.1.5) C875 CHG PROP 81MM M220		2021	TBD / TBD	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	35,593	13.78	Y		
4.1.6) C875 FIN MORTAR CTG M24		2018	GAYSTON CORP / SPRINGBORO, OH	C / IDIQ	PICATINNY ARSENAL, NJ	May 2018	Nov 2019	153,898	14.80	Y		
4.1.6) C875 FIN MORTAR CTG M24		2019	GAYSTON CORP / SPRINGBORO, OH	C / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2018	Jun 2020	9,822	14.50	Y		
4.1.6) C875 FIN MORTAR CTG M24	✓	2019	GAYSTON CORP / SPRINGBORO, OH	C / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2018	Jun 2020	9,911	14.50	Y		
4.1.6) C875 FIN MORTAR CTG M24		2020 (14)	TBD / TBD	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	9,129	18.50	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1085 / Mortars	Item Number / Title [DODIC]: 1 / 1085 Mortars

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.1.6) C875 FIN MORTAR CTG M24		2021 (15)	TBD / TBD	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	8,898	18.87	Y		

(†) indicates the presence of a P-21

Footnotes:

(8) Competed among the following contractors: American Ordnance and General Dynamics.
(9) Competed among the following contractors: American Ordnance and General Dynamics.
(10) Competed among the following contractors: Gayston and Flexible Concepts.
(11) Competed among the following contractors: Gayston and Flexible Concepts.
(12) Competed amoung the following contractors:Gayston Corp. and Flexible Concepts.
(13) Competed amoung the following contractors:Gayston Corp. and Flexible Concepts.
(14) Competed among the following contractors:Gayston Corp. and Flexible Concepts.
(15) Competed among the following contractors:Gayston Corp. and Flexible Concepts.

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1085 / Mortars	**Item Number / Title [DODIC]:** 1 / 1085 Mortars

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP) (3)																															
	1	2020	NAVY	52.476	.000	52.476																									52.476
	1	2021	NAVY	38.008	.000	38.008																									38.008
3.1.2) CA66 FUZE MO, M734A1 (4)																															
	2	2020	NAVY	54.050	.000	54.050																									54.050
	2	2021	NAVY	39.148	.000	39.148																									39.148
3.1.8) CA66 EXPLOSIVE FILL IMX-104 (6)																															
	3	2020	NAVY	220.399	.000	220.399																									220.399
	3	2021	NAVY	159.634	.000	159.634																									159.634
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1085 / Mortars	**Item Number / Title [DODIC]:** 1 / 1085 Mortars

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP) (3)																															
	1	2020	NAVY	52.476	.000	52.476								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52.476
	1	2021	NAVY	38.008	.000	38.008																				A -	-	-	-	-	38.008
3.1.2) CA66 FUZE MO, M734A1 (4)																															
	2	2020	NAVY	54.050	.000	54.050					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54.050
	2	2021	NAVY	39.148	.000	39.148																	A -	-	-	-	-	-	-	-	39.148
3.1.8) CA66 EXPLOSIVE FILL IMX-104 (6)																															
	3	2020	NAVY	220.399	.000	220.399					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220.399
	3	2021	NAVY	159.634	.000	159.634																	A -	-	-	-	-	-	-	-	159.634
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1085 / Mortars	**Item Number / Title [DODIC]:** 1 / 1085 Mortars

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP) (3)																															
	1	2020	NAVY	52.476	.000	52.476	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.803	5.665	5.665	5.665	5.665	22.013
	1	2021	NAVY	38.008	.000	38.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.008
3.1.2) CA66 FUZE MO, M734A1 (4)																															
	2	2020	NAVY	54.050	.000	54.050	-	-	-	-	-	-	-	-	-	-	7.501	5.300	5.300	5.300	4.975	4.300	4.300	4.300	4.300	4.300	4.105	.069			.000
	2	2021	NAVY	39.148	.000	39.148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.440	3.438	32.270
3.1.8) CA66 EXPLOSIVE FILL IMX-104 (6)																															
	3	2020	NAVY	220.399	.000	220.399	-	-	-	-	-	-	-	-	-	-	20.730	11.755	11.755	11.755	11.760	11.755	11.755	11.755	11.755	11.755	11.755	82.114			.000
	3	2021	NAVY	159.634	.000	159.634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.030	14.019	131.585
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1085 / Mortars | **Item Number / Title [DODIC]:** 1 / 1085 Mortars

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
3.1.1) CA66 LOAD, ASSEMBLE AND PACK (LAP) (3)																															
	1	2020	NAVY	52.476	30.463	22.013	4.718	4.665	4.665	4.665	2.364	-	.936																		.000
	1	2021	NAVY	38.008	.000	38.008	-	-	-	-	-	-	-	5.042	3.406	3.330	3.000	3.338	3.338	3.338	3.338	3.338	3.338	-	3.202						.000
3.1.2) CA66 FUZE MO, M734A1 (4)																															
	2	2020	NAVY	54.050	54.050	.000																									.000
	2	2021	NAVY	39.148	6.878	32.270	3.438	3.300	3.300	3.357	3.438	3.438	3.438	3.438	3.438	1.685															.000
3.1.8) CA66 EXPLOSIVE FILL IMX-104 (6)																															
	3	2020	NAVY	220.399	220.399	.000																									.000
	3	2021	NAVY	159.634	28.049	131.585	14.019	14.019	14.019	14.019	14.019	14.019	14.019	14.019	12.503	6.930															.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1085 / Mortars	**Item Number / Title [DODIC]:** 1 / 1085 Mortars

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TO BE SELECTED - UNKNOWN	48,000	144,000	360,000	8	8	36	44	8	8	36	44
2	L-3 FUZING & ORDNANCE SYSTEMS INC - CINCINATTI, OH	48,000	144,000	1,200,000	8	8	30	38	8	8	30	38
3	BAE ORDNANCE SYSTEMS - KINGSPORT, TN	48,000	144,000	360,000	8	8	30	38	8	8	30	38

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions

ID Code (A=Service Ready, B=Not Service Ready): A | **Program Elements for Code B Items:** N/A | **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	40.500	62.631	102.078	119.504	0.000	119.504	81.501	101.129	109.067	141.174	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	40.500	62.631	102.078	119.504	0.000	119.504	81.501	101.129	109.067	141.174	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**40.500**	**62.631**	**102.078**	**119.504**	**0.000**	**119.504**	**81.501**	**101.129**	**109.067**	**141.174**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Direct Support Munitions budget supports the shoulder launched rocket and 120mm munitions family are included in this budget request. The 120mm tank ammunition is fired from a M1A1 (Abrams) tank with a 120mm main armament smoothbore M256 Cannon. It consists of a suite of Kinetic Energy (KE), Multi-Purpose High Explosive (MPHE), canister and High Explosive Anti-Tank (HEAT) rounds. The 120mm tank ammunition also includes target practice rounds for use with the 120mm smooth bore M256 Cannon.

This family also includes 120mm smoothbore mortar ammunition to support pre-deployment training for the deploying Marine Expeditionary Units (MEUs). The 120mm smoothbore mortar ammunition suite consists of high explosive, illumination and white phosphorous rounds fired out of the M298 mortar cannon. Previously, the 120mm mortar ammunition procurements were to support the rifled Expeditionary Fire Support System (EFSS), however the EFSS program was cancelled effective 28 Nov 17.

The Shoulder-Launched Multipurpose Assault Weapon (SMAW), the AT4 Confined Space (AT4 CS) and Lightweight Assault Weapon (LAW) shoulder fired family of rockets provides lightweight weapons mainly employed against and optimized to defeat light armored vehicles and other hard targets at close combat ranges. They can be employed from an enclosure or the open battlefield as assault weapons against bunkers, field fortifications, structures and other hard-point positions. Additionally, training launchers and sub-caliber practice rockets that fully simulate firing are also included.

The highly versatile Carl-Gustaf system is a true multi-role, man-portable shoulder-fired weapon. The system offers various types of ammunition, ranging from armor penetration and anti-personnel, to ammunition for built-up areas as well as special features like smoke and illumination. Carl-Gustaf system required adjustment in FY 2020 to reflect significant updates to unit price and quantities; DODICs affected: A254, C385, C386, CA10, CA20, CA21, CA27, CA36, CA41, CA51.

FY 2021 funding totals include $119.504M for Base and $0.0M for Overseas Contingency Operations (OCO).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / 120 MM, All Types	P-5a, P-21			- / 0.000	- / 0.000	- / 1.000	- / 39.842	- / 0.000	- / 39.842
P-5	2 / Rockets, All Types	P-5a, P-21			- / 40.500	- / 62.630	- / 101.078	- / 79.662	- / 0.000	- / 79.662
P-40	**Total Gross/Weapon System Cost**				**- / 40.500**	**- / 62.631**	**- / 102.078**	**- / 119.504**	**- / 0.000**	**- / 119.504**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $119.504M

The FY 2021 baseline funding supports the procurement of several direct support munitions to include: the 120mm Advanced Multi-purpose (AMP) tank round (DODIC CZ11), the 120mm M1002 Target Practice Multi-purpose-Tracer (TPMP-T) tank round, the Shoulder Launched Multipurpose Assault Weapon (SMAW) rocket, 83mm Common Practice round (CP)(DODIC HX07), 66MM Anti-Structure Lightweight Assault Weapon (LAW) Fire From Enclosure (FFE)(HB25), 66MM High Explosive Anti-Armor Rocket (DODIC HB26), 84mm HE Rocket (AT4)(DODIC C995) and the 84mm Carl-Gustaf family of ammunition. The 7.62mm TR Cartridge (DODIC A254) will also be procured.

The increase from FY 2020 to FY 2021 of $17.426M reflects requirement changes in CZ11 (120mm Multipurpose Round), CA31 (120mm Training Practice), HB25 (Rocket, 66mm Anti-Structure LAW FFE), and other direct support munitions to support the total munitions requirement.

FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 1 / 120 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	1.000	39.842	0.000	39.842
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	1.000	39.842	0.000	39.842
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**1.000**	**39.842**	**0.000**	**39.842**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - CZ11 CTG, 120MM Advanced Multipurpose Round Cost																		
Recurring Cost																		
1.1.1) CZ11 120mm Advanced Multi-Purpose, High Explosive(†) (1)	-	-	0.000	-	-	0.000	-	-	0.000	9,690.00	2,481	24.041	-	-	0.000	9,690.00	2,481	24.041
1.1.2) CZ11 Production Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.010	-	-	0.000	-	-	0.010
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*24.051*	-	-	*0.000*	-	-	*24.051*
Subtotal: Hardware - CZ11 CTG, 120MM Advanced Multipurpose Round Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***24.051***	**-**	**-**	***0.000***	**-**	**-**	***24.051***
Hardware - CA31 Cartridge 120mm TP-T M1002 Cost																		
Recurring Cost																		
2.1.1) CA31 Complete System GDOTS(†) (2)	-	-	0.000	-	-	0.000	-	-	0.000	2,702.92	3,092	8.357	-	-	0.000	2,702.92	3,092	8.357
2.1.2) CA31 Complete System NGIS(†) (3)	-	-	0.000	-	-	0.000	-	-	0.000	2,702.92	2,529	6.836	-	-	0.000	2,702.92	2,529	6.836
2.1.3) CA31 Engineering Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.470	-	-	0.000	-	-	0.470
2.1.4) CA31 Quality Assurance	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.001	-	-	0.000	-	-	0.001
2.1.5) CA31 Acceptance Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.127	-	-	0.000	-	-	0.127
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*15.791*	-	-	*0.000*	-	-	*15.791*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 1 / 120 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - CA31 Cartridge 120mm TP-T M1002 Cost	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***	-	-	***15.791***	-	-	***0.000***	-	-	***15.791***
Hardware - CA04 Ctg Mortar 120mm HE M934 Cost																		
Recurring Cost																		
3.1.1) CA04 Load, Assemble, Pack (LAP)(†)	-	-	0.000	-	-	0.000	146.76	1,072	0.157	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) CA04 Shell Body 120mm HE(†)	-	-	0.000	-	-	0.000	142.79	1,104	0.158	-	-	0.000	-	-	0.000	-	-	0.000
3.1.3) CA04 Ignition Cartridge M1020(†)	-	-	0.000	-	-	0.000	24.15	1,104	0.027	-	-	0.000	-	-	0.000	-	-	0.000
3.1.4) COMP B Type I Grade A(†)	-	-	0.000	-	-	0.000	13.52	9,648	0.130	-	-	0.000	-	-	0.000	-	-	0.000
3.1.5) CA04 Propellant Charge M234A1(†)	-	-	0.000	-	-	0.000	21.25	4,417	0.094	-	-	0.000	-	-	0.000	-	-	0.000
3.1.6) CA04 Fin Assembly M31(†)	-	-	0.000	-	-	0.000	45.15	1,104	0.050	-	-	0.000	-	-	0.000	-	-	0.000
3.1.7) CA04 Fuze MOFM M734A1(†)	-	-	0.000	-	-	0.000	280.62	1,104	0.310	-	-	0.000	-	-	0.000	-	-	0.000
3.1.8) CA04 Production Engineering	-	-	0.000	-	-	0.000	-	-	0.062	-	-	0.000	-	-	0.000	-	-	0.000
3.1.9) CA04 Acceptance Testing	-	-	0.000	-	-	0.000	-	-	0.012	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - CA04 Ctg Mortar 120mm HE M934 Cost	-	-	***0.000***	-	-	***0.000***	-	-	***1.000***	-	-	***0.000***	-	-	***0.000***	-	-	***0.000***
Gross/Weapon System Cost	-	-	**0.000**	-	-	**0.000**	-	-	**1.000**	-	-	**39.842**	-	-	**0.000**	-	-	**39.842**

(†) indicates the presence of a P-5a

Footnotes:

(1) The CZ11 (120mm Advanced Multi-Purpose, High Explosive with Tracer cartridges) is replacing the CA57 (120mm Multi-Purpose High Explosive) round. PM Maneuvers Ammunition Systems provided a unit cost of $9,500 for FY 2020 based on the Independent Government Cost Estimate (IGCE). This unit cost was inflated by 2% to obtain FY 2021 unit cost of $9690.00.

(2) CA31 Complete Round - FY 2021 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 1 / 120 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

(3) CA31 Complete Round - FY 2021 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 1 / 120 MM, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) CZ11 120mm Advanced Multi-Purpose, High Explosive(†)		2021	TBD / TBD	C / TBD	PICATINNY ARSENAL, NJ	Oct 2020	Oct 2021	2,481	9,690.00	N	Oct 2020	
2.1.1) CA31 Complete System GDOTS(†)		2021	GENERAL DYNAMICS / ST PETERSBURG, FL	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Feb 2022	3,092	2,702.92	Y		
2.1.2) CA31 Complete System NGIS(†)		2021	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Feb 2022	2,529	2,702.92	Y		
3.1.1) CA04 Load, Assemble, Pack (LAP)		2020 (4)	GENERAL DYNAMICS CANADA / CANADA	C / IDIQ	PICATINNY ARSENAL, NJ	May 2020	May 2023	1,072	146.76	Y	Mar 2020	
3.1.2) CA04 Shell Body 120mm HE		2020	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Sep 2021	1,104	142.79	Y	Mar 2020	
3.1.3) CA04 Ignition Cartridge M1020		2020	NAMMO POCAL INDUSTRIES 1 / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	1,104	24.15	Y	Mar 2020	
3.1.4) COMP B Type I Grade A		2020	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Feb 2021	9,648	13.52	Y	Mar 2020	
3.1.5) CA04 Propellant Charge M234A1		2020	TBD / TBD	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	4,417	21.25	Y	Mar 2020	
3.1.6) CA04 Fin Assembly M31		2020	TBD / TBD	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2020	Aug 2021	1,104	45.15	Y	Mar 2020	
3.1.7) CA04 Fuze MOFM M734A1		2020	L-3 FUZING & ORDANCE SYSTEMS INC / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Jul 2020	Jan 2022	1,104	280.62	Y		

(†) indicates the presence of a P-21

Footnotes:

(4) FY20 LAP is an option on existing contract

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 1 / 120 MM, All Types

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) CZ11 120mm Advanced Multi-Purpose, High Explosive [1]																															
	1	2021	NAVY	2,481	0	2,481													A -	-	-	-	-	-	-	-	-	-	-	-	2,481
2.1.1) CA31 Complete System GDOTS [2]																															
	2	2021	NAVY	3,092	0	3,092																		A -	-	-	-	-	-	-	3,092
2.1.2) CA31 Complete System NGIS [3]																															
	3	2021	NAVY	2,529	0	2,529																		A -	-	-	-	-	-	-	2,529
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 1 / 120 MM, All Types

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) CZ11 120mm Advanced Multi-Purpose, High Explosive (1)																															
	1	2021	NAVY	2,481	0	2,481	300	300	300	300	300	300	300	300	81																0
2.1.1) CA31 Complete System GDOTS (2)																															
	2	2021	NAVY	3,092	0	3,092	-	-	-	-	500	500	500	500	500	500	92														0
2.1.2) CA31 Complete System NGIS (3)																															
	3	2021	NAVY	2,529	0	2,529	-	-	-	-	210	210	210	210	210	210	210	210	210	210	210	219									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 1 / 120 MM, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD			TBD	12	0	12	12	12	0	12	12
2	GENERAL DYNAMICS - ST PETERSBURG, FL	1,200	34,560	93,600	6	6	11	17	6	6	11	17
3	NORTHROP GRUMMAN INNOVATION SYSTEMS - PLYMOUTH, MN	1,200	34,560	93,600	6	6	11	17	6	6	11	17

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	40.500	62.630	101.078	79.662	0.000	79.662
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	40.500	62.630	101.078	79.662	0.000	79.662
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**40.500**	**62.630**	**101.078**	**79.662**	**0.000**	**79.662**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - HA29 ROCKET 66MM HE M72A7 LAW WITH GRAZE Cost																		
Recurring Cost																		
1.1.1) HA29 PRODUCTION ENGINEERING	-	-	0.000	-	-	0.385	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.385*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - HA29 ROCKET 66MM HE M72A7 LAW WITH GRAZE Cost	**-**	**-**	***0.000***	**-**	**-**	***0.385***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - HB25 ROCKET 66MM ANTI-STRUCTURE LAW FFE Cost																		
Recurring Cost																		
2.1.1) HB25 COMPLETE ROUND(†) (5)	-	-	0.000	-	-	0.000	9,097.63	2,967	26.993	9,279.58	3,230	29.973	-	-	0.000	9,279.58	3,230	29.973
2.1.2) HB25 PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.007	-	-	0.016	-	-	0.000	-	-	0.016
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*27.000*	-	-	*29.989*	-	-	*0.000*	-	-	*29.989*
Subtotal: Hardware - HB25 ROCKET 66MM ANTI-STRUCTURE LAW FFE Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***27.000***	**-**	**-**	***29.989***	**-**	**-**	***0.000***	**-**	**-**	***29.989***
Hardware - HB26 ROCKET 66MM HE ANTI ARMOR Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.1.1) HB26 COMPLETE ROUND(†) (6)	-	-	0.000	-	-	0.000	8,832.65	1,358	11.995	9,009.30	1,329	11.973	-	-	0.000	9,009.30	1,329	11.973
3.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.005	-	-	0.016	-	-	0.000	-	-	0.016
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*12.000*	-	-	*11.989*	-	-	*0.000*	-	-	*11.989*
Subtotal: Hardware - HB26 ROCKET 66MM HE ANTI ARMOR Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***12.000***	**-**	**-**	***11.989***	**-**	**-**	***0.000***	**-**	**-**	***11.989***
Hardware - HX07 ROCKET, 83MM HEAA PRACTICE Cost																		
Recurring Cost																		
4.1.1) HX07 COMPLETE ROUND(†) (7)	3,543.95	10,604	37.580	-	-	0.000	4,077.01	2,075	8.460	7,629.57	46	0.351	-	-	0.000	7,629.57	46	0.351
4.1.2) PRODUCTION ENGINEERING	-	-	0.320	-	-	0.167	-	-	0.318	-	-	0.475	-	-	0.000	-	-	0.475
Subtotal: Recurring Cost	-	-	*37.900*	-	-	*0.167*	-	-	*8.778*	-	-	*0.826*	-	-	*0.000*	-	-	*0.826*
Subtotal: Hardware - HX07 ROCKET, 83MM HEAA PRACTICE Cost	**-**	**-**	***37.900***	**-**	**-**	***0.167***	**-**	**-**	***8.778***	**-**	**-**	***0.826***	**-**	**-**	***0.000***	**-**	**-**	***0.826***
Hardware - CA30 ROCKET 84MM CONFINED SPACE (AT4) Cost																		
Recurring Cost																		
5.1.1) CA30 COMPLETE ROUND(†)	-	-	0.000	4,235.65	4,146	17.561	4,278.33	3,530	15.103	-	-	0.000	-	-	0.000	-	-	0.000
5.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.003	-	-	0.091	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*17.564*	-	-	*15.194*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - CA30 ROCKET 84MM CONFINED SPACE (AT4) Cost	**-**	**-**	***0.000***	**-**	**-**	***17.564***	**-**	**-**	***15.194***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - A254 CTG 7.62MM TR ADAPTR CARL GUSTAF Cost																		
Recurring Cost																		
6.1.1) A254 COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	2.68	146,898	0.394	2.56	157,416	0.403	-	-	0.000	2.56	157,416	0.403
6.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.023	-	-	0.010	-	-	0.000	-	-	0.010
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.417*	-	-	*0.413*	-	-	*0.000*	-	-	*0.413*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - A254 CTG 7.62MM TR ADAPTR CARL GUSTAF Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.417***	**-**	**-**	***0.413***	**-**	**-**	***0.000***	**-**	**-**	***0.413***
Hardware - C385 CTG, 84MM, SMOKE Cost																		
Recurring Cost																		
7.1.1) C385 COMPLETE ROUND(†)	-	-	0.000	1,284.66	1,100	1.413	1,386.41	2,967	4.113	1,070.11	3,715	3.975	-	-	0.000	1,070.11	3,715	3.975
7.1.2) PRODUCTION ENGINEERING (8)	-	-	0.000	-	-	0.000	-	-	0.001	-	-	0.130	-	-	0.000	-	-	0.130
7.1.3) FIRST ARTICLE TEST	-	-	0.000	-	-	0.064	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.477*	-	-	*4.114*	-	-	*4.105*	-	-	*0.000*	-	-	*4.105*
Subtotal: Hardware - C385 CTG, 84MM, SMOKE Cost	**-**	**-**	***0.000***	**-**	**-**	***1.477***	**-**	**-**	***4.114***	**-**	**-**	***4.105***	**-**	**-**	***0.000***	**-**	**-**	***4.105***
Hardware - C386 CTG, 84MM, TP 552 (MAAWS) Cost																		
Recurring Cost																		
8.1.1) C386 COMPLETE ROUND(†)	-	-	0.000	2,212.21	6,510	14.401	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
8.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.147	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*14.548*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - C386 CTG, 84MM, TP 552 (MAAWS) Cost	**-**	**-**	***0.000***	**-**	**-**	***14.548***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - CA10 CTG 84MM TPT ROUND Cost																		
Recurring Cost																		
9.1.1) CA10 COMPLETE ROUND(†) (9)	-	-	0.000	-	-	0.000	420.25	14,048	5.904	479.71	12,597	6.043	-	-	0.000	479.71	12,597	6.043
9.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.350	-	-	0.202	-	-	0.000	-	-	0.202
9.1.3) ACCEPTANCE TESTING	-	-	0.000	-	-	0.000	-	-	0.032	-	-	0.032	-	-	0.000	-	-	0.032
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*6.286*	-	-	*6.277*	-	-	*0.000*	-	-	*6.277*
Subtotal: Hardware - CA10 CTG 84MM TPT ROUND Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***6.286***	**-**	**-**	***6.277***	**-**	**-**	***0.000***	**-**	**-**	***6.277***
Hardware - CA20 CTG 84MM HE AT (HEAT) Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Recurring Cost																		
10.1.1) CA20 COMPLETE ROUND(†) (10)	-	-	0.000	2,349.48	1,144	2.688	1,695.99	2,193	3.719	3,757.80	965	3.626	-	-	0.000	3,757.80	965	3.626
10.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.002	-	-	0.001	-	-	0.085	-	-	0.000	-	-	0.085
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*2.690*	-	-	*3.720*	-	-	*3.711*	-	-	*0.000*	-	-	*3.711*
Subtotal: Hardware - CA20 CTG 84MM HE AT (HEAT) Cost	**-**	**-**	***0.000***	**-**	**-**	***2.690***	**-**	**-**	***3.720***	**-**	**-**	***3.711***	**-**	**-**	***0.000***	**-**	**-**	***3.711***
Hardware - CA21 CTG 84MM HEDP Cost																		
Recurring Cost																		
11.1.1) CA21 COMPLETE ROUND(†) (11)	4,088.33	317	1.296	1,571.52	3,659	5.750	2,485.34	1,242	3.087	1,880.33	1,696	3.189	-	-	0.000	1,880.33	1,696	3.189
11.1.2) PRODUCTION ENGINEERING	-	-	0.004	-	-	0.160	-	-	0.189	-	-	0.104	-	-	0.000	-	-	0.104
11.1.3) ACCEPTANCE TESTING	-	-	0.000	-	-	0.000	-	-	0.055	-	-	0.029	-	-	0.000	-	-	0.029
Subtotal: Recurring Cost	-	-	*1.300*	-	-	*5.910*	-	-	*3.331*	-	-	*3.322*	-	-	*0.000*	-	-	*3.322*
Subtotal: Hardware - CA21 CTG 84MM HEDP Cost	**-**	**-**	***1.300***	**-**	**-**	***5.910***	**-**	**-**	***3.331***	**-**	**-**	***3.322***	**-**	**-**	***0.000***	**-**	**-**	***3.322***
Hardware - CA27 CTG 84MM M3 HE FFV Cost																		
Recurring Cost																		
12.1.1) CA27 COMPLETE ROUND(†) (12)	4,027.95	322	1.297	1,620.29	2,680	4.342	2,400.80	1,806	4.336	2,496.83	1,312	3.276	-	-	0.000	2,496.83	1,312	3.276
12.1.2) PRODUCTION ENGINEERING	-	-	0.003	-	-	0.166	-	-	0.236	-	-	0.108	-	-	0.000	-	-	0.108
12.1.3) ACCEPTANCE TESTING	-	-	0.000	-	-	0.000	-	-	0.068	-	-	0.075	-	-	0.000	-	-	0.075
Subtotal: Recurring Cost	-	-	*1.300*	-	-	*4.508*	-	-	*4.640*	-	-	*3.459*	-	-	*0.000*	-	-	*3.459*
Subtotal: Hardware - CA27 CTG 84MM M3 HE FFV Cost	**-**	**-**	***1.300***	**-**	**-**	***4.508***	**-**	**-**	***4.640***	**-**	**-**	***3.459***	**-**	**-**	***0.000***	**-**	**-**	***3.459***
Hardware - CA36 CTG 84MM GUSTAF ILLUM Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
13.1.1) CA36 COMPLETE ROUND(†)	-	-	0.000	2,058.61	1,579	3.251	2,221.66	3,266	7.256	1,936.93	3,620	7.012	-	-	0.000	1,936.93	3,620	7.012
13.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.235	-	-	0.000	-	-	0.235
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*3.251*	-	-	*7.256*	-	-	*7.247*	-	-	*0.000*	-	-	*7.247*
Subtotal: Hardware - CA36 CTG 84MM GUSTAF ILLUM Cost	**-**	**-**	***0.000***	**-**	**-**	***3.251***	**-**	**-**	***7.256***	**-**	**-**	***7.247***	**-**	**-**	***0.000***	**-**	**-**	***7.247***
Hardware - CA41 CTG 84MM ANTI-STRUCTURE MUNITION Cost																		
Recurring Cost																		
14.1.1) CA41 COMPLETE ROUND(†)	-	-	0.000	3,914.69	636	2.490	3,914.69	1,587	6.213	3,195.76	1,940	6.200	-	-	0.000	3,195.76	1,940	6.200
14.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.005	-	-	0.003	-	-	0.007	-	-	0.000	-	-	0.007
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*2.495*	-	-	*6.216*	-	-	*6.207*	-	-	*0.000*	-	-	*6.207*
Subtotal: Hardware - CA41 CTG 84MM ANTI-STRUCTURE MUNITION Cost	**-**	**-**	***0.000***	**-**	**-**	***2.495***	**-**	**-**	***6.216***	**-**	**-**	***6.207***	**-**	**-**	***0.000***	**-**	**-**	***6.207***
Hardware - CA51 CTG 84MM CARL GUSTAF MULTI-TARGET Cost																		
Recurring Cost																		
15.1.1) CA51 COMPLETE ROUND(†) (13)	-	-	0.000	7,238.38	184	1.332	7,854.00	270	2.121	8,025.13	256	2.054	-	-	0.000	8,025.13	256	2.054
15.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.004	-	-	0.005	-	-	0.063	-	-	0.000	-	-	0.063
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.336*	-	-	*2.126*	-	-	*2.117*	-	-	*0.000*	-	-	*2.117*
Subtotal: Hardware - CA51 CTG 84MM CARL GUSTAF MULTI-TARGET Cost	**-**	**-**	***0.000***	**-**	**-**	***1.336***	**-**	**-**	***2.126***	**-**	**-**	***2.117***	**-**	**-**	***0.000***	**-**	**-**	***2.117***
Hardware - AC05 20MM Carl Gustaf Trainer system Cost																		
Recurring Cost																		
16.1.1) AC05 CPMPLETE ROUNDS(†)	-	-	0.000	93.64	87,900	8.231	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
16.1.2) PRODUCTION ENGINEERING	-	-	0.000	-	-	0.068	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*8.299*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - AC05 20MM Carl Gustaf Trainer system Cost	-	-	*0.000*	-	-	*8.299*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Gross/Weapon System Cost	-	-	40.500	-	-	62.630	-	-	101.078	-	-	79.662	-	-	0.000	-	-	79.662

(†) indicates the presence of a P-5a

Footnotes:

(5) HB25: FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a larger quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

(6) HB26: FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

(7) HX07 COMPLETE ROUND - The increase in unit cost is due to an overall lower quantity being procured on the Army's contract in FY 2021 as compared to FY 2020. Thus, increasing the unit cost.

(8) Increase reflects the additional level of support required, due to the increase in quantity being procured in FY21.

(9) CA10 COMPLETE ROUND - Pricing is provided by the Single Manager for Conventional Ammunition (SMCA) and incorporates all service buys.

(10) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

(11) CA21 COMPLETE ROUND - Pricing is provided by the Single Manager for Conventional Ammunition (SMCA). The unit cost decrease is due to economies of scale.

(12) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

(13) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.1) HB25 COMPLETE ROUND(†)		2020	TBD / TBD	C / TBD	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	2,967	9,097.63	Y		
2.1.1) HB25 COMPLETE ROUND(†)		2021	TBD / TBD	C / TBD	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	3,230	9,279.58	Y		
3.1.1) HB26 COMPLETE ROUND(†)		2020	TBD / TBD	C / TBD	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	1,358	8,832.65	Y		
3.1.1) HB26 COMPLETE ROUND(†)		2021	TBD / TBD	C / TBD	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	1,329	9,009.30	Y		
4.1.1) HX07 COMPLETE ROUND(†)		2018	NAMMO Talley Defense Systems / Mesa, AZ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2018	Jul 2020	10,222	3,543.93	Y		
4.1.1) HX07 COMPLETE ROUND(†)	✓	2018	NAMMO Talley Defense Systems / Mesa, AZ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2018	Jul 2020	382	3,543.93	Y		
4.1.1) HX07 COMPLETE ROUND(†)		2020	NAMMO Talley Defense Systems / Mesa, AZ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Jul 2022	2,075	4,077.01	Y		
4.1.1) HX07 COMPLETE ROUND(†)		2021	NAMMO Talley Defense Systems / Mesa, AZ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Jul 2023	46	7,629.57	Y		
5.1.1) CA30 COMPLETE ROUND(†)		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN@Kalskga, Sweeden	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Dec 2020	4,004	4,228.77	Y		
5.1.1) CA30 COMPLETE ROUND(†)	✓	2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN@Kalskga, Sweeden	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Jun 2021	142	4,428.84	Y		
5.1.1) CA30 COMPLETE ROUND(†)		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN@Kalskga, Sweeden	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Sep 2021	3,530	4,278.33	Y		
6.1.1) A254 COMPLETE ROUND		2020	SAAB DYNAMAMICS AB@KARLSKOGA, SWEDEN / Kalskga, Sweeden	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	146,898	2.68	Y		
6.1.1) A254 COMPLETE ROUND		2021	SAAB DYNAMAMICS AB@KARLSKOGA, SWEDEN / Kalskga, Sweeden	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	157,416	2.56	Y		
7.1.1) C385 COMPLETE ROUND		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	1,100	1,284.66	Y		
7.1.1) C385 COMPLETE ROUND		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	May 2021	2,967	1,386.41	Y		
7.1.1) C385 COMPLETE ROUND		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	3,715	1,070.11	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
8.1.1) C386 COMPLETE ROUND(†)		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2019	Sep 2020	6,510	2,212.21	Y		
9.1.1) CA10 COMPLETE ROUND(†)		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	14,048	420.25	Y		
9.1.1) CA10 COMPLETE ROUND(†)		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	12,597	479.71	Y		
10.1.1) CA20 COMPLETE ROUND		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	1,144	2,349.48	Y		
10.1.1) CA20 COMPLETE ROUND		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	May 2021	2,193	1,695.99	Y		
10.1.1) CA20 COMPLETE ROUND		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	965	3,757.80	Y		
11.1.1) CA21 COMPLETE ROUND		2018	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	SOCOM, FL	Jul 2018	Oct 2019	317	4,088.36	Y		
11.1.1) CA21 COMPLETE ROUND		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	3,659	1,571.52	Y		
11.1.1) CA21 COMPLETE ROUND		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	1,242	2,485.34	Y		
11.1.1) CA21 COMPLETE ROUND		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	1,696	1,880.33	Y		
12.1.1) CA27 COMPLETE ROUND(†)		2018	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	SOCOM, FL	Jul 2018	Oct 2019	322	4,026.78	Y		
12.1.1) CA27 COMPLETE ROUND(†)		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	2,680	1,620.29	Y		
12.1.1) CA27 COMPLETE ROUND(†)		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	May 2021	1,318	2,400.80	Y		
12.1.1) CA27 COMPLETE ROUND(†)	✓	2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	488	2,400.80	Y		
12.1.1) CA27 COMPLETE ROUND(†)		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	1,312	2,496.83	Y		
13.1.1) CA36 COMPLETE ROUND(†)		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Jun 2021	1,579	2,058.61	Y		
13.1.1) CA36 COMPLETE ROUND(†)		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	Nov 2021	3,266	2,221.66	Y		
13.1.1) CA36 COMPLETE ROUND(†)		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	3,620	1,936.93	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1125 / Direct Support Munitions	Item Number / Title [DODIC]: 2 / Rockets, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
14.1.1) CA41 COMPLETE ROUND(†)		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	636	3,914.69	Y		
14.1.1) CA41 COMPLETE ROUND(†)		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	May 2021	1,587	3,914.69	Y		
14.1.1) CA41 COMPLETE ROUND(†)		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	1,940	3,195.76	Y		
15.1.1) CA51 COMPLETE ROUND		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Jun 2021	184	7,238.38	Y		
15.1.1) CA51 COMPLETE ROUND		2020	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	Nov 2021	270	7,854.00	Y		
15.1.1) CA51 COMPLETE ROUND		2021	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	256	8,025.13	Y		
16.1.1) AC05 CPMPLETE ROUNDS		2019	SAAB DYNAMAMICS AB / KARLSKOGA, SWEDEN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Sep 2020	87,900	93.64	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1125 / Direct Support Munitions | **Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) HB25 COMPLETE ROUND (5)																															
	1	2020	NAVY	2.967	.000	2.967																									2.967
	1	2021	NAVY	3.230	.000	3.230																									3.230
3.1.1) HB26 COMPLETE ROUND (6)																															
	2	2020	NAVY	1.358	.000	1.358																									1.358
	2	2021	NAVY	1.329	.000	1.329																									1.329
4.1.1) HX07 COMPLETE ROUND (7)																															
	3	2018	NAVY	10.222	.000	10.222						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.222
✓	3	2018	NAVY	.382	.000	.382						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.382
	3	2020	NAVY	2.075	.000	2.075																									2.075
	3	2021	NAVY	.046	.000	.046																									.046
5.1.1) CA30 COMPLETE ROUND																															
	4	2019	NAVY	4.004	.000	4.004																					A -	-	-	-	4.004
✓	4	2019	NAVY	.142	.000	.142																					A -	-	-	-	.142
	4	2020	NAVY	3.530	.000	3.530																									3.530
8.1.1) C386 COMPLETE ROUND																															
	5	2019	NAVY	6.510	.000	6.510																		A -	-	-	-	-	-	-	6.510
9.1.1) CA10 COMPLETE ROUND (9)																															
	6	2020	NAVY	14.048	.000	14.048																									14.048
	7	2021	NAVY	12.597	.000	12.597																									12.597
12.1.1) CA27 COMPLETE ROUND (12)																															
	8	2018	NAVY	.322	.000	.322										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.322
	8	2019	NAVY	2.680	.000	2.680																					A -	-	-	-	2.680
	8	2020	NAVY	1.318	.000	1.318																									1.318
✓	8	2020	NAVY	.488	.000	.488																									.488
	8	2021	NAVY	1.312	.000	1.312																									1.312
13.1.1) CA36 COMPLETE ROUND																															
	9	2019	NAVY	1.579	.000	1.579																					A -	-	-	-	1.579
	9	2020	NAVY	3.266	.000	3.266																									3.266
	9	2021	NAVY	3.620	.000	3.620																									3.620
14.1.1) CA41 COMPLETE ROUND																															
	10	2019	NAVY	.636	.000	.636																					A -	-	-	-	.636
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	10	2020	NAVY	1.587	.000	1.587																									1.587
	10	2021	NAVY	1.940	.000	1.940																									1.940
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1125 / Direct Support Munitions | **Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) HB25 COMPLETE ROUND (5)																															
	1	2020	NAVY	2.967	.000	2.967						A -	-	-	-	-	-	-	-	-	-	-	-	.300	.300	.300	.300	.300	.300	.300	.867
	1	2021	NAVY	3.230	.000	3.230																		A -	-	-	-	-	-	-	3.230
3.1.1) HB26 COMPLETE ROUND (6)																															
	2	2020	NAVY	1.358	.000	1.358						A -	-	-	-	-	-	-	-	-	-	-	-	.300	.300	.300	.300	.158			.000
	2	2021	NAVY	1.329	.000	1.329																		A -	-	-	-	-	-	-	1.329
4.1.1) HX07 COMPLETE ROUND (7)																															
	3	2018	NAVY	10.222	.000	10.222	-	-	-	-	-	-	-	-	-	1.047	1.046	1.046	1.046	1.046	1.046	1.046	1.046	.788	-	1.028	.037				.000
✓	3	2018	NAVY	.382	.000	.382	-	-	-	-	-	-	-	-	-	.225	.157														.000
	3	2020	NAVY	2.075	.000	2.075						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.075
	3	2021	NAVY	.046	.000	.046																		A -	-	-	-	-	-	-	.046
5.1.1) CA30 COMPLETE ROUND																															
	4	2019	NAVY	4.004	.000	4.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.250	.250	.250	.250	.250	.250	.250	.252	.500	.500	1.002
✓	4	2019	NAVY	.142	.000	.142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.142				.000
	4	2020	NAVY	3.530	.000	3.530						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.300	3.230
8.1.1) C386 COMPLETE ROUND																															
	5	2019	NAVY	6.510	.000	6.510	-	-	-	-	-	-	-	-	-	-	-	.545	.545	.545	.545	.545	.545	.545	.545	.545	.545	.545	.515		.000
9.1.1) CA10 COMPLETE ROUND (9)																															
	6	2020	NAVY	14.048	.000	14.048						A -	-	-	-	-	-	-	-	-	-	-	-	3.000	3.000	3.000	3.000	2.048			.000
	7	2021	NAVY	12.597	.000	12.597																		A -	-	-	-	-	-	-	12.597
12.1.1) CA27 COMPLETE ROUND (12)																															
	8	2018	NAVY	.322	.000	.322	.322																								.000
	8	2019	NAVY	2.680	.000	2.680	-	-	-	-	-	-	-	-	-	-	-	2.680													.000
	8	2020	NAVY	1.318	.000	1.318								A -	-	-	-	-	-	-	-	-	-	-	-	1.045	.273				.000
✓	8	2020	NAVY	.488	.000	.488						A -	-	-	-	-	-	-	-	-	-	-	-	.488							.000
	8	2021	NAVY	1.312	.000	1.312																		A -	-	-	-	-	-	-	1.312
13.1.1) CA36 COMPLETE ROUND																															
	9	2019	NAVY	1.579	.000	1.579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.138	.131	.131	.131	1.048
	9	2020	NAVY	3.266	.000	3.266								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.266
	9	2021	NAVY	3.620	.000	3.620																		A -	-	-	-	-	-	-	3.620
14.1.1) CA41 COMPLETE ROUND																															
	10	2019	NAVY	.636	.000	.636	-	-	-	-	-	-	-	-	-	-	-	.636													.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	10	2020	NAVY	1.587	.000	1.587								A -	-	-	-	-	-	-	-	-	-	-	-	.135	.132	.132	.132	.132	.924
	10	2021	NAVY	1.940	.000	1.940																		A -	-	-	-	-	-	-	1.940
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1125 / Direct Support Munitions | **Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
2.1.1) HB25 COMPLETE ROUND (5)																															
	1	2020	NAVY	2.967	2.100	.867	.300	.300	.267																						.000
	1	2021	NAVY	3.230	.000	3.230	-	-	-	-	-	.350	.350	.350	.350	.350	.350	.350	.350	.430											.000
3.1.1) HB26 COMPLETE ROUND (6)																															
	2	2020	NAVY	1.358	1.358	.000																									.000
	2	2021	NAVY	1.329	.000	1.329	-	-	-	-	-	.300	.300	.300	.300	.129															.000
4.1.1) HX07 COMPLETE ROUND (7)																															
	3	2018	NAVY	10.222	10.222	.000																									.000
✓	3	2018	NAVY	.382	.382	.000																									.000
	3	2020	NAVY	2.075	.000	2.075	-	-	-	-	-	-	-	-	-	1.000	1.010	.065													.000
	3	2021	NAVY	.046	.000	.046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.046			.000
5.1.1) CA30 COMPLETE ROUND																															
	4	2019	NAVY	4.004	3.002	1.002	.500	.502																							.000
✓	4	2019	NAVY	.142	.142	.000																									.000
	4	2020	NAVY	3.530	.300	3.230	.300	.300	.300	.300	.300	.300	.300	.300	.350	.350	.130														.000
8.1.1) C386 COMPLETE ROUND																															
	5	2019	NAVY	6.510	6.510	.000																									.000
9.1.1) CA10 COMPLETE ROUND (9)																															
	6	2020	NAVY	14.048	14.048	.000																									.000
	7	2021	NAVY	12.597	.000	12.597	-	-	-	-	-	12.597																			.000
12.1.1) CA27 COMPLETE ROUND (12)																															
	8	2018	NAVY	.322	.322	.000																									.000
	8	2019	NAVY	2.680	2.680	.000																									.000
	8	2020	NAVY	1.318	1.318	.000																									.000
✓	8	2020	NAVY	.488	.488	.000																									.000
	8	2021	NAVY	1.312	.000	1.312	-	-	-	-	-	1.312																			.000
13.1.1) CA36 COMPLETE ROUND																															
	9	2019	NAVY	1.579	.531	1.048	.131	.131	.131	.131	.131	.131	.131	.131																	.000
	9	2020	NAVY	3.266	.000	3.266	-	.274	.272	.272	.272	.272	.272	.272	.272	.272	.272	.272	.272												.000
	9	2021	NAVY	3.620	.000	3.620	-	-	-	-	-	-	-	-	-	-	-	.302	.302	.301	.301	.301	.301	.301	.301	.301	.301	.301	.307		.000
14.1.1) CA41 COMPLETE ROUND																															
	10	2019	NAVY	.636	.636	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 2 / Rockets, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	10	2020	NAVY	1.587	.663	.924	.132	.132	.132	.132	.132	.132	.132																		.000
	10	2021	NAVY	1.940	.000	1.940	-	-	-	-	-	-	-	-	-	-	-	.165	.165	.165	.165	.165	.165	.165	.165	.165	.165	.165	.125		.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1125 / Direct Support Munitions	**Item Number / Title [DODIC]:** 2 / Rockets, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	3,000	6,000	12,000	8	8	12	20	8	8	12	20
2	TBD - TBD	3,000	6,000	12,000	8	8	12	20	8	8	12	20
3	NAMMO Talley Defense Systems - Mesa, AZ	12,000	30,000	144,000	8	8	31	39	6	6	28	34
4	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN@Kalskga, Sweeden	500	5,000	7,000	8	8	24	32	6	6	18	24
5	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	360,000	600,000	8	8	15	23	6	6	12	18
6	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	360,000	600,000	8	8	15	23	6	6	12	18
7	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	306,000	600,000	8	8	15	23	6	6	12	18
8	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	360,000	600,000	8	8	15	23	6	6	12	18
9	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	360,000	600,000	8	8	15	23	6	6	12	18
10	SAAB DYNAMAMICS AB - KARLSKOGA, SWEDEN	120,000	360,000	600,000	8	8	15	23	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	89.196	55.474	54.246	83.220	0.000	83.220	169.609	109.730	103.928	114.497	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	89.196	55.474	54.246	83.220	0.000	83.220	169.609	109.730	103.928	114.497	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**89.196**	**55.474**	**54.246**	**83.220**	**0.000**	**83.220**	**169.609**	**109.730**	**103.928**	**114.497**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Infantry Weapons Ammunition budget supports small arms ammunition and medium caliber ammunition.

Small arms ammunition is a cartridge or a family of cartridges intended to be used in various types of crew-served/mounted weapons, hand-held pistols, or shoulder fired rifles; ranging from .22 caliber to .50 caliber weapons. A small arms cartridge is an assembly consisting of a cartridge case, a primer, a quantity of propellant, and a bullet. Small arms ammunition consists primarily of 9mm ammunition, 5.56mm ammunition, 7.62mm ammunition, 12 gauge shotgun ammunition, .300 Winchester Magnum ammunition, and .50 caliber ammunition. The .50 caliber ammunition includes the Polymer-cased cartridges that provides a 25-30% reduction in overall cartridge weight over the conventional brass-cased rounds.

Medium caliber ammunition is a cartridge or family of cartridges larger than .50cal, but smaller than 60mm and supports a variety of crew-served/mounted weapons, hand-held 40mm grenade launchers, and Light Armored Vehicle weapon systems. Medium caliber ammunition consists primarily of 25mm, 30mm, and 40mm cartridges.

FY 2021 funding includes $83.220M for Base and $0.000M for Overseas Contingency Operations (OCO).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / CTG, 40 MM, All Types	P-5a, P-21			- / 14.282	- / 3.675	- / 23.212	- / 25.873	- / 0.000	- / 25.873
P-5	2 / CTG, 25 MM, All Types	P-5a			- / 3.285	- / 0.000	- / 0.800	- / 2.996	- / 0.000	- / 2.996
P-5	3 / Small Arms Ammunition	P-5a, P-21			- / 71.629	- / 51.799	- / 29.733	- / 53.359	- / 0.000	- / 53.359
P-5	4 / CTG, 30 MM, All Types	P-5a			- / 0.000	- / 0.000	- / 0.500	- / 0.992	- / 0.000	- / 0.992
P-40	**Total Gross/Weapon System Cost**				**- / 89.196**	**- / 55.474**	**- / 54.246**	**- / 83.220**	**- / 0.000**	**- / 83.220**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $83.220M

The FY 2021 baseline funds are required to replenish munitions to be expended by Marine Forces during training, preparation and rehearsals for combat engagements. The .50 caliber reduced range ammunition will be procured to address operational requirements in an urban environment and the ability to train on ranges where only ammunition with 7.62mm surface danger zone can be live-fired. Funding will also support the procurement of 5.56mm marking rounds for simulated training in an urban environment, 9mm training ammunition, 9mm blank single rounds. Additionally, funding is required for 30mm Cartridges, as well as 40mm Target Practice, Day/Night Marker rounds. The FY 2020 request also includes funding for 25mm Target Practice rounds in support of Marine Forces training. Funding will procure additional units in support of increased requirements, totaling $800K. Additionally, funding was added for 30mm HE and Target Practice rounds to procure units in support of emerging requirements, totaling $500K.

The FY 2021 funding request was reduced by $19.749M to account for the availability of prior year execution balances.

The $28.974M budget increase from FY 2020 to FY 2021 reflects requirement changes in 5.56mm Rounds (A059, AB57 and AA68), 25mm Cartridge (A940), 40mm Practice Rounds (BA21, BA54, and BA55), 50 Caliber Reduced Range (AC15), 12 Gauge Cartridge (AA54), and 7.62mm Rounds (AB39 and ANS1) supporting the total munitions requirement.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 1 / CTG, 40 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.282	3.675	23.212	25.873	0.000	25.873
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.282	3.675	23.212	25.873	0.000	25.873
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.282**	**3.675**	**23.212**	**25.873**	**0.000**	**25.873**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - BA21, CTG, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 Cost																		
Recurring Cost																		
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK(†)	35.90	395,043	14.182	36.90	97,000	3.579	37.25	602,416	22.440	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - PRODUCTION ENGINEERING	-	-	0.090	-	-	0.079	-	-	0.210	-	-	0.026	-	-	0.000	-	-	0.026
1.1.3) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - QUALITY ASSURANCE	-	-	0.010	-	-	0.017	-	-	0.062	-	-	0.025	-	-	0.000	-	-	0.025
Subtotal: Recurring Cost	-	-	*14.282*	-	-	*3.675*	-	-	*22.712*	-	-	*0.051*	-	-	*0.000*	-	-	*0.051*
Subtotal: Hardware - BA21, CTG, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 Cost	**-**	**-**	***14.282***	**-**	**-**	***3.675***	**-**	**-**	***22.712***	**-**	**-**	***0.051***	**-**	**-**	***0.000***	**-**	**-**	***0.051***
Hardware - BA54, CTG, 40MM PRACTICE DAY/ NIGHT/ THERMAL M781E1 Cost																		
Recurring Cost																		
2.1.1) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 -	-	-	0.000	-	-	0.000	-	-	0.000	12.67	766,618	9.713	-	-	0.000	12.67	766,618	9.713

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 1 / CTG, 40 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
LOAD, ASSEMBLE, AND PACK(†) (1)																		
2.1.2) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.527	-	-	0.000	-	-	0.527
2.1.3) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.155	-	-	0.000	-	-	0.155
2.1.4) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - NONRECURRING - FAAT	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.089	-	-	0.000	-	-	0.089
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*10.484*	-	-	*0.000*	-	-	*10.484*
Subtotal: Hardware - BA54, CTG, 40MM PRACTICE DAY/ NIGHT/ THERMAL M781E1 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***10.484***	**-**	**-**	***0.000***	**-**	**-**	***10.484***
Hardware - BA55, CTG, 40MM PRACTICE DAY/ NIGHT/ THERMAL M918E1 LINKED Cost																		
Recurring Cost																		
3.1.1) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - LOAD, ASSEMBLE, AND PACK(†)	-	-	0.000	-	-	0.000	-	-	0.000	21.82	671,047	14.642	-	-	0.000	21.82	671,047	14.642
3.1.2) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.357	-	-	0.000	-	-	0.357
3.1.3) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.277	-	-	0.000	-	-	0.277
3.1.4) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - NONRECURRING - FAAT	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.062	-	-	0.000	-	-	0.062
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*15.338*	-	-	*0.000*	-	-	*15.338*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 1 / CTG, 40 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - BA55, CTG, 40MM PRACTICE DAY/ NIGHT/ THERMAL M918E1 LINKED Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	15.338	-	-	0.000	-	-	15.338
Hardware - B550, CTG, 40MM Saluting Cost																		
Recurring Cost																		
4.1.1) B550, 40MM SALUTING - LOAD, ASSEMBLE, AND PACK	-	-	0.000	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	0.000	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Hardware - B550, CTG, 40MM Saluting Cost	-	-	0.000	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.000	-	-	0.000
Gross/Weapon System Cost	-	-	14.282	-	-	3.675	-	-	23.212	-	-	25.873	-	-	0.000	-	-	25.873

(†) indicates the presence of a P-5a

Footnotes:

(1) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 1 / CTG, 40 MM, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK(†)		2018	AMERICAN RHEINMETALL MUNITIONS / CAMDEN, AR	SS / IDIQ	MCSC, QUANTICO, VA	Sep 2018	Sep 2019	372,870	35.90	Y		May 2018
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK(†)	✓	2018	AMERICAN RHEINMETALL MUNITIONS / CAMDEN, AR	SS / IDIQ	MCSC, QUANTICO, VA	Sep 2018	Sep 2019	22,173	35.90	Y		May 2018
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK(†)		2019	AMERICAN RHEINMETALL MUNITIONS / CAMDEN, AR	SS / IDIQ	MCSC, QUANTICO, VA	Apr 2019	Apr 2020	97,000	36.90	Y		Jan 2019
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK(†)		2020	AMERICAN RHEINMETALL MUNITIONS / CAMDEN, AR	SS / IDIQ	MCSC, QUANTICO, VA	Apr 2020	Apr 2021	602,416	37.25	Y		Jan 2020
2.1.1) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - LOAD, ASSEMBLE, AND PACK(†)		2021	TBD / TBD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Jul 2022	766,618	12.67	Y		Jan 2020
3.1.1) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - LOAD, ASSEMBLE, AND PACK(†)		2021	TBD / TBD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Jul 2022	671,047	21.82	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1

P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition

Item Number / Title [DODIC]: 1 / CTG, 40 MM, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK																															
	1	2018	NAVY	372.870	.000	372.870												A -	-	-	-	-	-	-	-	-	-	-	-	31.000	341.870
✓	1	2018	NAVY	22.173	.000	22.173												A -	-	-	-	-	-	-	-	-	-	-	-	2.000	20.173
	1	2019	NAVY	97.000	.000	97.000																			A -	-	-	-	-	-	97.000
	1	2020	NAVY	602.416	.000	602.416																									602.416
2.1.1) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - LOAD, ASSEMBLE, AND PACK [1]																															
	2	2021	NAVY	766.618	.000	766.618																									766.618
3.1.1) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - LOAD, ASSEMBLE, AND PACK																															
	3	2021	NAVY	671.047	.000	671.047																									671.047
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 1 / CTG, 40 MM, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK																															
	1	2018	NAVY	372.870	31.000	341.870	31.000	31.000	31.000	30.000	31.000	31.000	31.000	31.000	31.000	32.000	31.870														.000
✓	1	2018	NAVY	22.173	2.000	20.173	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.173															.000
	1	2019	NAVY	97.000	.000	97.000	-	-	-	-	-	-	2.000	2.000	2.000	2.000	10.000	10.000	12.000	12.000	10.000	12.000	12.000	11.000							.000
	1	2020	NAVY	602.416	.000	602.416							A -	-	-	-	-	-	-	-	-	-	-	-	34.657	30.000	50.000	60.000	60.000	60.000	307.759
2.1.1) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - LOAD, ASSEMBLE, AND PACK (1)																															
	2	2021	NAVY	766.618	.000	766.618																		A -	-	-	-	-	-	-	766.618
3.1.1) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - LOAD, ASSEMBLE, AND PACK																															
	3	2021	NAVY	671.047	.000	671.047																		A -	-	-	-	-	-	-	671.047
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 1 / CTG, 40 MM, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) BA21, 40MM PRACTICE DAY/ NIGHT MK281 MOD3 - LOAD, ASSEMBLE, AND PACK																															
	1	2018	NAVY	372.870	372.870	.000																									.000
✓	1	2018	NAVY	22.173	22.173	.000																									.000
	1	2019	NAVY	97.000	97.000	.000																									.000
	1	2020	NAVY	602.416	294.657	307.759	60.000	60.000	50.000	50.000	50.000	37.759																			.000
2.1.1) BA54, 40MM PRACTICE DAY/ NIGHT M781E1 - LOAD, ASSEMBLE, AND PACK [1]																															
	2	2021	NAVY	766.618	.000	766.618	-	-	-	-	-	-	-	-	-	89.618	80.000	80.000	80.000	80.000	80.000	50.000	50.000	50.000	50.000	50.000	27.000				.000
3.1.1) BA55, 40MM PRACTICE DAY/ NIGHT M918E1 - LOAD, ASSEMBLE, AND PACK																															
	3	2021	NAVY	671.047	.000	671.047	-	-	-	-	-	-	-	-	-	77.097	80.000	60.000	51.612	50.334	50.334	50.334	50.334	50.334	50.334	50.334	50.000				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 1 / CTG, 40 MM, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	AMERICAN RHEINMETALL MUNITIONS - CAMDEN, AR	10,000	70,000	750,000	6	6	12	18	6	6	12	18
2	TBD - TBD	1,200	1,500,000	4,500,000	6	6	16	22	6	6	16	22
3	TBD - TBD	1,200	3,000,000	7,200,000	6	6	16	22	6	6	16	22

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 2 / CTG, 25 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.285	0.000	0.800	2.996	0.000	2.996
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.285	0.000	0.800	2.996	0.000	2.996
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.285**	**0.000**	**0.800**	**2.996**	**0.000**	**2.996**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - A940, CTG, 25MM TPDS-T LINKED M910 Cost																		
Recurring Cost																		
1.1.1) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (GDOTS)(†) (2)	51.43	60,567	3.115	-	-	0.000	51.22	6,051	0.310	66.39	19,762	1.312	-	-	0.000	66.39	19,762	1.312
1.1.2) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (NGIS)(†) (3)	-	-	0.000	-	-	0.000	51.22	6,051	0.310	66.39	19,762	1.312	-	-	0.000	66.39	19,762	1.312
1.1.3) A940 - CTG, 25MM TPDS-T LINKED M910 - CONTAINER PA125(†)	81.09	2,047	0.166	-	-	0.000	93.51	409	0.038	93.51	1,335	0.125	-	-	0.000	93.51	1,335	0.125
1.1.4) A940 - CTG, 25MM TPDS-T LINKED M910 - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.038	-	-	0.121	-	-	0.000	-	-	0.121
1.1.5) A940 - CTG, 25MM TPDS-T LINKED M910 - QUALITY ASSURANCE	-	-	0.004	-	-	0.000	-	-	0.004	-	-	0.026	-	-	0.000	-	-	0.026

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 2 / CTG, 25 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.1.6) A940 - CTG, 25MM TPDS-T LINKED M910 - NONRECURRING - FAAT	-	-	0.000	-	-	0.000	-	-	0.100	-	-	0.100	-	-	0.000	-	-	0.100
Subtotal: Recurring Cost	-	-	*3.285*	-	-	*0.000*	-	-	*0.800*	-	-	*2.996*	-	-	*0.000*	-	-	*2.996*
Subtotal: Hardware - A940, CTG, 25MM TPDS-T LINKED M910 Cost	**-**	**-**	***3.285***	**-**	**-**	***0.000***	**-**	**-**	***0.800***	**-**	**-**	***2.996***	**-**	**-**	***0.000***	**-**	**-**	***2.996***
Gross/Weapon System Cost	**-**	**-**	**3.285**	**-**	**-**	**0.000**	**-**	**-**	**0.800**	**-**	**-**	**2.996**	**-**	**-**	**0.000**	**-**	**-**	**2.996**

(†) indicates the presence of a P-5a

Footnotes:

(2) A940 - FY 2020 unit cost provided by the Single Manager for Conventional Ammunition (SMCA) is based on FY 2020 pricing. Actual cost will be updated at the next budget submission. FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys.

(3) A940 - FY 2020 unit cost provided by the Single Manager for Conventional Ammunition (SMCA) is based on FY 2020 pricing. Actual cost will be updated at the next budget submission. FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 2 / CTG, 25 MM, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (GDOTS)		2020	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	Rock Island Arsenal, IL	Jan 2020	Jan 2021	6,051	51.22	Y		Jan 2020
1.1.1) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (GDOTS)		2021 (4)	GENERAL DYNAMICS OTS / MARION, IL	C / FFP	Rock Island Arsenal, IL	Jan 2021	Jan 2022	19,762	66.39	Y		
1.1.2) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (NGIS)		2020	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	C / FFP	** NO PCO **	Mar 2020	Mar 2021	6,051	51.22	Y		
1.1.2) A940 - CTG, 25MM TPDS-T LINKED M910 - LOAD, ASSEMBLE, AND PACK (NGIS)		2021	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	C / FFP	** NO PCO **	Mar 2021	Mar 2022	19,762	66.39	Y		
1.1.3) A940 - CTG, 25MM TPDS-T LINKED M910 - CONTAINER PA125		2020	CONCO, INC -2 / LOUISVILLE, KY	C / FFP	Rock Island Arsenal, IL	Jan 2020	Sep 2020	409	93.51	Y		Jan 2020
1.1.3) A940 - CTG, 25MM TPDS-T LINKED M910 - CONTAINER PA125		2021	CONCO, INC -2 / LOUISVILLE, KY	C / FFP	Rock Island Arsenal, IL	Jan 2021	Sep 2021	1,335	93.51	Y		

Footnotes:

(4) FY 2021 Load, Assemble and Pack (LAP) is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	71.629	51.799	29.733	53.359	0.000	53.359
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	71.629	51.799	29.733	53.359	0.000	53.359
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**71.629**	**51.799**	**29.733**	**53.359**	**0.000**	**53.359**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - A014, CTG, 12 GAUGE #7 1/2 SHOT COMMERCIAL Cost																		
Recurring Cost																		
1.1.1) A014, 12 GAUGE #7, COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	0.29	661,648	0.192	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) A014, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.058	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.250*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - A014, CTG, 12 GAUGE #7 1/2 SHOT COMMERCIAL Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.250***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - A011, CTG, 12 Gauge #00 BUCKSHOT M162 Cost																		
Recurring Cost																		
2.1.1) A011, CTG, 12 GAUGE COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.56	301,021	0.169	-	-	0.000	0.56	301,021	0.169
2.1.2) A011, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.023	-	-	0.000	-	-	0.023
2.1.3) A011, Quality Assurance	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.004	-	-	0.000	-	-	0.004
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.196*	-	-	*0.000*	-	-	*0.196*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - A011, CTG, 12 Gauge #00 BUCKSHOT M162 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.196***	**-**	**-**	***0.000***	**-**	**-**	***0.196***
Hardware - A023, CTG, 12 GAUGE 1OZ SLUG COMMERCIAL Cost																		
Recurring Cost																		
3.1.1) A023, 12 GAUGE 1OZ SLUG, COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	0.81	308,642	0.250	0.84	292,857	0.246	-	-	0.000	0.84	292,857	0.246
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.250*	-	-	*0.246*	-	-	*0.000*	-	-	*0.246*
Subtotal: Hardware - A023, CTG, 12 GAUGE 1OZ SLUG COMMERCIAL Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.250***	**-**	**-**	***0.246***	**-**	**-**	***0.000***	**-**	**-**	***0.246***
Hardware - A059, CTG, 5.56MM BALL Cost																		
Recurring Cost																		
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1)(†) (5)	0.21	167,762K	35.230	-	-	0.000	0.27	18,711,111	5.052	0.37	91,051,948	33.689	-	-	0.000	0.37	91,051,948	33.689
4.1.2) A059, 5.56MM BALL, BOX METAL M2A2 (EA) (2)(†) (6)	13.67	199,636	2.729	-	-	0.000	14.34	28,750	0.412	14.63	108,395	1.586	-	-	0.000	14.63	108,395	1.586
4.1.3) A059, 5.56MM BALL, PRODUCTION ENGINEERING	-	-	1.722	-	-	1.800	-	-	0.434	-	-	0.365	-	-	0.000	-	-	0.365
4.1.4) A059, 5.56MM BALL, QUALITY ASSURANCE	-	-	0.014	-	-	0.100	-	-	0.013	-	-	0.003	-	-	0.000	-	-	0.003
4.1.5) A059, 5.56MM BALL, ACCEPTANCE TESTING	-	-	0.067	-	-	0.000	-	-	0.039	-	-	0.008	-	-	0.000	-	-	0.008
Subtotal: Recurring Cost	-	-	*39.762*	-	-	*1.900*	-	-	*5.950*	-	-	*35.651*	-	-	*0.000*	-	-	*35.651*
Subtotal: Hardware - A059, CTG, 5.56MM BALL Cost	**-**	**-**	***39.762***	**-**	**-**	***1.900***	**-**	**-**	***5.950***	**-**	**-**	***35.651***	**-**	**-**	***0.000***	**-**	**-**	***35.651***
Hardware - A151, CTG, 7.62MM 4 BALL M80/1 TRACER M62 LINKED Cost																		
Recurring Cost																		
5.1.1) A151, 7.62MM 4/1 LINKED COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.84	1,163,271	0.977	-	-	0.000	0.84	1,163,271	0.977

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.1.2) A151, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.037	-	-	0.000	-	-	0.037
5.1.3) A151 QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.007	-	-	0.000	-	-	0.007
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*1.021*	-	-	*0.000*	-	-	*1.021*
Subtotal: Hardware - A151, CTG, 7.62MM 4 BALL M80/1 TRACER M62 LINKED Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.021***	**-**	**-**	***0.000***	**-**	**-**	***1.021***
Hardware - A363, CTG, 9MM BALL Cost																		
Recurring Cost																		
6.1.1) A363, 9MM BALL, LOAD, ASSEMBLE AND PACK (LAP)(†)	0.18	520,176	0.094	-	-	0.000	0.19	1,484,123	0.282	0.20	1,198,576	0.240	-	-	0.000	0.20	1,198,576	0.240
6.1.2) A363, 9MM BALL, PRODUCTION ENGINEERING	-	-	0.194	-	-	0.000	-	-	0.014	-	-	0.049	-	-	0.000	-	-	0.049
6.1.3) A363, 9MM BALL, QUALITY ASSURANCE	-	-	0.001	-	-	0.000	-	-	0.001	-	-	0.007	-	-	0.000	-	-	0.007
Subtotal: Recurring Cost	-	-	*0.289*	-	-	*0.000*	-	-	*0.297*	-	-	*0.296*	-	-	*0.000*	-	-	*0.296*
Subtotal: Hardware - A363, CTG, 9MM BALL Cost	**-**	**-**	***0.289***	**-**	**-**	***0.000***	**-**	**-**	***0.297***	**-**	**-**	***0.296***	**-**	**-**	***0.000***	**-**	**-**	***0.296***
Hardware - A555, CAL .50 BALL M33 LINKED Cost																		
Recurring Cost																		
7.1.1) A555, CAL .50 BALL M33 LINKED, COMPLETE ROUND(†) (7)	-	-	0.000	1.86	1,533,870	2.853	2.34	1,509,859	3.533	2.42	1,189,669	2.879	-	-	0.000	2.42	1,189,669	2.879
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*2.853*	-	-	*3.533*	-	-	*2.879*	-	-	*0.000*	-	-	*2.879*
Subtotal: Hardware - A555, CAL .50 BALL M33 LINKED Cost	**-**	**-**	***0.000***	**-**	**-**	***2.853***	**-**	**-**	***3.533***	**-**	**-**	***2.879***	**-**	**-**	***0.000***	**-**	**-**	***2.879***
Hardware - A576, CTG, CAL .50 4 & 1 LINKED Cost																		
Recurring Cost																		
8.1.1) A576, CAL. 50 4 & 1 LINKED, COMPLETE ROUND(†) (8)	2.03	148,087	0.300	1.98	151,452	0.300	2.45	122,648	0.300	2.47	63,967	0.158	-	-	0.000	2.47	63,967	0.158

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Recurring Cost	-	-	*0.300*	-	-	*0.300*	-	-	*0.300*	-	-	*0.158*	-	-	*0.000*	-	-	*0.158*
Subtotal: Hardware - A576, CTG, CAL .50 4 & 1 LINKED Cost	**-**	**-**	***0.300***	**-**	**-**	***0.300***	**-**	**-**	***0.300***	**-**	**-**	***0.158***	**-**	**-**	***0.000***	**-**	**-**	***0.158***
Hardware - AA40, CTG, 5.56MM FRANGIBLE SNGL RD Cost																		
Recurring Cost																		
9.1.1) AA40, 5.56MM FRANGIBLE, COMPLETE ROUND(†)	-	-	0.000	0.37	2,671,248	0.988	0.38	1,299,038	0.494	0.39	1,264,446	0.493	-	-	0.000	0.39	1,264,446	0.493
9.1.2) AA40, 5.56MM FRANGIBLE, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.008	-	-	0.004	-	-	0.003	-	-	0.000	-	-	0.003
9.1.3) AA40, 5.56MM FRANGIBLE, QUALITY ASSURANCE	-	-	0.000	-	-	0.004	-	-	0.002	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.000*	-	-	*0.500*	-	-	*0.496*	-	-	*0.000*	-	-	*0.496*
Subtotal: Hardware - AA40, CTG, 5.56MM FRANGIBLE SNGL RD Cost	**-**	**-**	***0.000***	**-**	**-**	***1.000***	**-**	**-**	***0.500***	**-**	**-**	***0.496***	**-**	**-**	***0.000***	**-**	**-**	***0.496***
Hardware - AA54, CTG, 12-GAUGE DOOR BREACHING M1030 Cost																		
Recurring Cost																		
10.1.1) AA54, CTG, 12-GAUGE DOOR BREACHING COMPLETE ROUND(†)	-	-	0.000	2.68	201,760	0.541	2.59	373,359	0.967	-	-	0.000	-	-	0.000	-	-	0.000
10.1.2) AA54, CTG 12-GAUGE DOOR BREACHING PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.033	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.541*	-	-	*1.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AA54, CTG, 12-GAUGE DOOR BREACHING M1030 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.541***	**-**	**-**	***1.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AA68, CTG, 5.56MM SHORT RANGE TRAINING M862 Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
11.1.1) AA68, CTG, 5.56MM COMPLETE ROUNDS(†)	-	-	0.000	-	-	0.000	0.52	1,117,911	0.581	-	-	0.000	-	-	0.000	-	-	0.000
11.1.2) AA68, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.019	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.600*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AA68, CTG, 5.56MM SHORT RANGE TRAINING M862 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.600***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AB05, CTG, 5.56MM SESAMS SINGLE RND (BLUE) Cost																		
Recurring Cost																		
12.1.1) AB05, 5.56MM SESAMS SINGLE RND (BLUE), COMPLETE ROUND(†)	0.65	5,896,922	3.828	-	-	0.000	0.69	5,072,460	3.500	0.70	5,447,142	3.813	-	-	0.000	0.70	5,447,142	3.813
Subtotal: Recurring Cost	-	-	*3.828*	-	-	*0.000*	-	-	*3.500*	-	-	*3.813*	-	-	*0.000*	-	-	*3.813*
Subtotal: Hardware - AB05, CTG, 5.56MM SESAMS SINGLE RND (BLUE) Cost	**-**	**-**	***3.828***	**-**	**-**	***0.000***	**-**	**-**	***3.500***	**-**	**-**	***3.813***	**-**	**-**	***0.000***	**-**	**-**	***3.813***
Hardware - AB06, CTG, 5.56MM SESAMS SINGLE RND (RED) Cost																		
Recurring Cost																		
13.1.1) AB06, 5.56MM SESAMS SINGLE RND (RED), COMPLETE ROUND(†)	0.67	4,025,373	2.706	-	-	0.000	0.69	3,389,860	2.339	0.70	3,264,285	2.285	-	-	0.000	0.70	3,264,285	2.285
Subtotal: Recurring Cost	-	-	*2.706*	-	-	*0.000*	-	-	*2.339*	-	-	*2.285*	-	-	*0.000*	-	-	*2.285*
Subtotal: Hardware - AB06, CTG, 5.56MM SESAMS SINGLE RND (RED) Cost	**-**	**-**	***2.706***	**-**	**-**	***0.000***	**-**	**-**	***2.339***	**-**	**-**	***2.285***	**-**	**-**	***0.000***	**-**	**-**	***2.285***
Hardware - AB43, CTG, CAL .300 WINCHESTER MAGNUM (WIN MAG) MATCH Cost																		
Recurring Cost																		
15.1.1) AB43, CAL .300 WIN MAG MATCH, COMPLETE ROUND(†)	-	-	0.000	1.00	779,000	0.779	1.35	184,642	0.249	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.779*	-	-	*0.249*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Subtotal: Hardware - AB43, CTG, CAL .300 WINCHESTER MAGNUM (WIN MAG) MATCH Cost	**-**	**-**	***0.000***	**-**	**-**	***0.779***	**-**	**-**	***0.249***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AB57, CTG, 5.56MM BALL M855A1 EPR Cost																		
Recurring Cost																		
16.1.1) AB57, CTG, 5.56MM BALL M855A1 EPR, LOAD, ASSEMBLE, AND PACK(†)	-	-	0.000	0.34	13,724,858	4.666	-	-	0.000	0.46	10,448,089	4.806	-	-	0.000	0.46	10,448,089	4.806
16.1.2) AB57, CTG 5.56 MM BALL EPR, METAL BOX M2A2(†)	-	-	0.000	14.07	16,333	0.230	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
16.1.3) AB57, CTG 5.56 MM BALL EPR, PRODUCTION ENGINEERING	-	-	0.000	-	-	0.102	-	-	0.000	-	-	0.170	-	-	0.000	-	-	0.170
16.1.4) AB57, CTG 5.56 MM BALL EPR, QUALITY ASSURANCE	-	-	0.000	-	-	0.002	-	-	0.000	-	-	0.016	-	-	0.000	-	-	0.016
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*5.000*	-	-	*0.000*	-	-	*4.992*	-	-	*0.000*	-	-	*4.992*
Subtotal: Hardware - AB57, CTG, 5.56MM BALL M855A1 EPR Cost	**-**	**-**	***0.000***	**-**	**-**	***5.000***	**-**	**-**	***0.000***	**-**	**-**	***4.992***	**-**	**-**	***0.000***	**-**	**-**	***4.992***
Hardware - AC15, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED Cost																		
Recurring Cost																		
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND(†)	-	-	0.000	4.80	6,783,125	32.559	4.94	1,556,477	7.689	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*32.559*	-	-	*7.689*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AC15, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED Cost	**-**	**-**	***0.000***	**-**	**-**	***32.559***	**-**	**-**	***7.689***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AC14, CTG, CAL .50 BALL REDUCED RANGE LINKED Cost																		
Recurring Cost																		
18.1.1) AC14, CAL .50 BALL REDUCED RANGE	-	-	0.000	4.40	1,534,300	6.751	4.53	476,379	2.158	4.67	259,528	1.212	-	-	0.000	4.67	259,528	1.212

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
LINKED, COMPLETE ROUND(†) (9)																		
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*6.751*	-	-	*2.158*	-	-	*1.212*	-	-	*0.000*	-	-	*1.212*
Subtotal: Hardware - AC14, CTG, CAL .50 BALL REDUCED RANGE LINKED Cost	**-**	**-**	***0.000***	**-**	**-**	***6.751***	**-**	**-**	***2.158***	**-**	**-**	***1.212***	**-**	**-**	***0.000***	**-**	**-**	***1.212***
Hardware - ANS1, CTG, 7.62x39MM BALL F/AK-47 (NON-STANDARD) Cost																		
Recurring Cost																		
19.1.1) ANS1, 7.62x39MM BALL F/ AK-47, COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	0.69	1,449,065	1.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - ANS1, CTG, 7.62x39MM BALL F/ AK-47 (NON-STANDARD) Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AC07 (formerly AXX3), CTG, 9MM BLANK SINGLE ROUND Cost																		
Recurring Cost																		
20.1.1) AC07 (formerly AXX3), 9MM BLANK, COMPLETE ROUND(†)	2.78	27,712	0.077	0.37	313,000	0.116	0.38	310,526	0.118	0.38	300,000	0.114	-	-	0.000	0.38	300,000	0.114
Subtotal: Recurring Cost	-	-	*0.077*	-	-	*0.116*	-	-	*0.118*	-	-	*0.114*	-	-	*0.000*	-	-	*0.114*
Subtotal: Hardware - AC07 (formerly AXX3), CTG, 9MM BLANK SINGLE ROUND Cost	**-**	**-**	***0.077***	**-**	**-**	***0.116***	**-**	**-**	***0.118***	**-**	**-**	***0.114***	**-**	**-**	***0.000***	**-**	**-**	***0.114***
Hardware - AB64, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED Cost																		
Recurring Cost																		
21.1.1) AB64, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED(†)	4.66	3,507,511	16.345	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*16.345*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AB64, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED Cost	**-**	**-**	***16.345***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - AB65, CTG, CAL .50 BALL REDUCED RANGE LINKED Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Recurring Cost																		
22.1.1) AB65, CTG, CAL .50 BALL REDUCED RANGE LINKED(†)	4.27	1,948,947	8.322	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*8.322*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - AB65, CTG, CAL .50 BALL REDUCED RANGE LINKED Cost	**-**	**-**	***8.322***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**71.629**	**-**	**-**	**51.799**	**-**	**-**	**29.733**	**-**	**-**	**53.359**	**-**	**-**	**0.000**	**-**	**-**	**53.359**

(†) indicates the presence of a P-5a

Footnotes:

(5) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is procuring a larger quantity, however the quantity of the total buy including all services on the Army contract impacts the unit cost.

(6) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is procuring a larger quantity, however the quantity of the total buy including all services on the Army contract impacts the unit cost.

(7) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY20 which also impacts the unit cost.

(8) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020 which also impacts the unit cost.

(9) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020 which also impacts the unit cost.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 3 / Small Arms Ammunition

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) A014, 12 GAUGE #7, COMPLETE ROUND		2020	OLIN CORPS WINCHESTER / EAST ALTON, IL	C / FFP	Rock Island Arsenal, IL	Mar 2020	Aug 2020	661,648	0.29	Y		
2.1.1) A011, CTG, 12 GAUGE COMPLETE ROUND		2021	OLIN WINCHESTER / EAST ALTON, IL	C / IDIQ	Rock Island Arsenal, IL	Mar 2021	Aug 2021	301,021	0.56	Y		
3.1.1) A023, 12 GAUGE 1OZ SLUG, COMPLETE ROUND		2020	TO BE SELECTED / TBD	C / IDIQ	Rock Island Arsenal, IL	Apr 2021	Apr 2022	308,642	0.81	Y		
3.1.1) A023, 12 GAUGE 1OZ SLUG, COMPLETE ROUND		2021	TO BE SELECTED / TBD	C / TBD	ROCK ISLAND ARSENAL	Oct 2020	Oct 2021	292,857	0.84	Y		
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1)(†)		2018	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL	Mar 2018	Nov 2019	163,094K	0.21	Y		
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1)(†)	✓	2018	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL	Mar 2018	Oct 2018	4,667,609	0.21	Y		
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1)(†)		2020	OLIN CORPS WINCHESTER / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL	Mar 2020	Mar 2021	18,711,111	0.27	Y		
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1)(†)		2021	OLIN CORPS WINCHESTER / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL	Mar 2021	Oct 2021	91,051,948	0.37	Y		
4.1.2) A059, 5.56MM BALL, BOX METAL M2A2 (EA) (2)		2018	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL	May 2018	Jul 2018	194,082	13.67	Y		
4.1.2) A059, 5.56MM BALL, BOX METAL M2A2 (EA) (2)	✓	2018	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL	May 2018	Jul 2018	5,554	13.67	Y		
4.1.2) A059, 5.56MM BALL, BOX METAL M2A2 (EA) (2)		2020	TBD / TBD	C / FFP	ROCK ISLAND ARSENAL	Jul 2020	Sep 2020	28,750	14.34	Y		
4.1.2) A059, 5.56MM BALL, BOX METAL M2A2 (EA) (2)		2021	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL	Oct 2020	Dec 2020	108,395	14.63	Y		
5.1.1) A151, 7.62MM 4/1 LINKED COMPLETE ROUND		2021	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / IDIQ	Rock Island Arsenal, IL	Mar 2021	Oct 2021	1,163,271	0.84	Y		
6.1.1) A363, 9MM BALL, LOAD, ASSEMBLE AND PACK (LAP)		2018	OLIN CORPORATION / ILLINOIS	C / FFP	Rock Island Arsenal, IL	Mar 2018	Sep 2018	520,176	0.18	Y		
6.1.1) A363, 9MM BALL, LOAD, ASSEMBLE AND PACK (LAP)		2020	OLIN CORPORATION / ILLINOIS	C / FFP	Rock Island Arsenal, IL	Mar 2020	Sep 2020	1,484,123	0.19	Y		
6.1.1) A363, 9MM BALL, LOAD, ASSEMBLE AND PACK (LAP)		2021	OLIN CORPORATION / ILLINOIS	C / FFP	Rock Island Arsenal, IL	Oct 2020	Apr 2021	1,198,576	0.20	Y		
7.1.1) A555, CAL .50 BALL M33 LINKED, COMPLETE ROUND		2019	MAC LLC / BAY ST. LOUIS, MI	SS / FFP	MCSC, QUANTICO, VA	Jan 2020	Aug 2020	1,533,870	1.86	Y		
7.1.1) A555, CAL .50 BALL M33 LINKED, COMPLETE ROUND		2020	OLIN CORPS WINCHESTER / EAST ALTON, IL	C / FFP	Rock Island Arsenal, IL	Mar 2020	Mar 2021	1,509,859	2.34	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
7.1.1) A555, CAL .50 BALL M33 LINKED, COMPLETE ROUND		2021	MAC LLC / BAY ST. LOUIS, MI	SS / FFP	MCSC, QUANTICO, VA.	Jan 2021	Aug 2021	1,189,669	2.42	Y		
8.1.1) A576, CAL. 50 4 & 1 LINKED, COMPLETE ROUND		2019	MAC LLC / BAY ST. LOUIS, MI	SS / FFP	MCSC, QUANTICO, VA	Jan 2020	Aug 2020	151,452	1.98	Y		
8.1.1) A576, CAL. 50 4 & 1 LINKED, COMPLETE ROUND		2020	MAC LLC / BAY ST. LOUIS, MI	C / FFP	Rock Island Arsenal, IL	Mar 2020	Oct 2020	122,648	2.45	Y		
8.1.1) A576, CAL. 50 4 & 1 LINKED, COMPLETE ROUND		2021	MAC LLC / BAY ST. LOUIS, MI	SS / FFP	MCSC, QUANTICO, VA	Jan 2021	Aug 2021	63,967	2.47	Y		
9.1.1) AA40, 5.56MM FRANGIBLE, COMPLETE ROUND		2019	VISTA OUTDOOR SALES / ANOKA, MN	C / FFP	PICATINNY ARSENAL, NJ	Jun 2019	Jun 2020	2,671,248	0.37	Y		
9.1.1) AA40, 5.56MM FRANGIBLE, COMPLETE ROUND		2020	VISTA OUTDOOR SALES / ANOKA, MN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Oct 2020	1,299,038	0.38	Y		
9.1.1) AA40, 5.56MM FRANGIBLE, COMPLETE ROUND		2021	VISTA OUTDOOR SALES / ANOKA, MN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Oct 2021	1,264,446	0.39	Y		
10.1.1) AA54, CTG, 12-GAUGE DOOR BREACHING COMPLETE ROUND		2019	Safariland LLC Casper WY / Safariland LLC Casper WY	C / TBD	PICATINNY ARSENAL, NJ	Sep 2019	Apr 2020	201,760	2.68	Y		Aug 2018
10.1.1) AA54, CTG, 12-GAUGE DOOR BREACHING COMPLETE ROUND		2020	Safariland LLC Casper WY / Safariland LLC Casper WY	C / FFP	PICATINNY ARSENAL, NJ	Apr 2020	Nov 2020	373,359	2.59	Y		Jan 2020
11.1.1) AA68, CTG, 5.56MM COMPLETE ROUNDS		2020	TBD / TBD	C / TBD	Rock Island Arsenal, IL	Aug 2020	Mar 2021	1,117,911	0.52	Y		
12.1.1) AB05, 5.56MM SESAMS SINGLE RND (BLUE), COMPLETE ROUND		2020	GENERAL DYNAMICS / CANADA	SS / FFP	MCSC, QUANTICO, VA	Apr 2020	Jul 2020	5,072,460	0.69	Y		
12.1.1) AB05, 5.56MM SESAMS SINGLE RND (BLUE), COMPLETE ROUND		2021	GENERAL DYNAMICS / CANADA	C / TBD	MCSC, QUANTICO, VA	Oct 2020	Jan 2021	5,447,142	0.70	Y		
13.1.1) AB06, 5.56MM SESAMS SINGLE RND (RED), COMPLETE ROUND		2020	GENERAL DYNAMICS / CANADA	C / FFP	MCSC, QUANTICO, VA	Apr 2020	Jul 2020	3,389,860	0.69	Y		Feb 2019
13.1.1) AB06, 5.56MM SESAMS SINGLE RND (RED), COMPLETE ROUND		2021	GENERAL DYNAMICS / CANADA	C / TBD	MCSC, QUANTICO, VA	Apr 2021	Jul 2021	3,264,285	0.70	Y		
15.1.1) AB43, CAL .300 WIN MAG MATCH, COMPLETE ROUND	✓	2019	VISTA OUTDOOR SALES / ANOKA, MN	C / IDIQ	Rock Island Arsenal, IL	Nov 2019	Jun 2020	779,000	1.00	Y		
15.1.1) AB43, CAL .300 WIN MAG MATCH, COMPLETE ROUND		2020	VISTA OUTDOOR SALES / ANOKA, MN	C / IDIQ	Rock Island Arsenal, IL	Mar 2020	Oct 2020	184,642	1.35	Y		
16.1.1) AB57, CTG, 5.56MM BALL M855A1 EPR, LOAD, ASSEMBLE, AND PACK		2019	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL	Mar 2019	Oct 2019	13,724,858	0.34	Y		Jan 2019

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
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Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
16.1.1) AB57, CTG, 5.56MM BALL M855A1 EPR, LOAD, ASSEMBLE, AND PACK		2021	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / TBD	ROCK ISLAND ARSENAL	Mar 2021	Oct 2021	10,448,089	0.46	Y		
16.1.2) AB57, CTG 5.56 MM BALL EPR, METAL BOX M2A2		2019	NORTHROP GRUMMAN (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL	May 2019	Feb 2020	16,333	14.07	Y		Feb 2019
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND(†)		2019	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Jan 2020	Nov 2020	6,783,125	4.80	Y		
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND(†)		2020	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Sep 2020	Jul 2021	1,556,477	4.94	Y		
18.1.1) AC14, CAL .50 BALL REDUCED RANGE LINKED, COMPLETE ROUND		2019	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Jan 2020	Nov 2020	1,534,300	4.40	Y		
18.1.1) AC14, CAL .50 BALL REDUCED RANGE LINKED, COMPLETE ROUND	✓	2020	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Sep 2020	Jul 2021	476,379	4.53	Y		
18.1.1) AC14, CAL .50 BALL REDUCED RANGE LINKED, COMPLETE ROUND		2021	OCR Global / Fairfax, VA	C / TBD	NSWC CD, CRANE, IN	Apr 2021	Feb 2022	259,528	4.67	Y		
19.1.1) ANS1, 7.62x39MM BALL F/ AK-47, COMPLETE ROUND		2020	GENERAL DYNAMICS / MONTREAL, CANADA	C / TBD	** NO PCO **	Oct 2019	Apr 2020	1,449,065	0.69	N		
20.1.1) AC07 (formerly AXX3), 9MM BLANK, COMPLETE ROUND		2019	GDOTS CANADA / CANADA	SS / FFP	MCSC, QUANTICO, VA	Apr 2019	Oct 2019	313,000	0.37	Y		Feb 2019
20.1.1) AC07 (formerly AXX3), 9MM BLANK, COMPLETE ROUND		2020	GDOTS CANADA / CANADA	SS / FFP	MCSC, QUANTICO, VA	Oct 2019	Apr 2020	310,526	0.38	Y		
20.1.1) AC07 (formerly AXX3), 9MM BLANK, COMPLETE ROUND		2021	GDOTS CANADA / CANADA	SS / FFP	MCSC, QUANTICO, VA	Oct 2020	Apr 2021	300,000	0.38	Y		
21.1.1) AB64, CTG, CAL .50 4 & 1 REDUCED RANGE LINKED		2018	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Jul 2018	Oct 2018	3,507,511	4.66	Y		Feb 2018
22.1.1) AB65, CTG, CAL .50 BALL REDUCED RANGE LINKED		2018	OCR Global / Fairfax, VA	C / IDIQ	NSWC CD, CRANE, IN	Apr 2018	Jul 2018	1,948,947	4.27	Y		Feb 2018

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
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Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1) (5)																															
	1	2018	NAVY	163.094	.000	163.094						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	163.094
✓	1	2018	NAVY	4.668	.000	4.668						A -	-	-	-	-	-	-	.352	.352	.617	.617	.352	.352	.352	.352	.352	.352	.352	.266	.000
	2	2020	NAVY	18.711	.000	18.711																									18.711
	2	2021	NAVY	91.052	.000	91.052																									91.052
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND																															
	3	2019	NAVY	6.783	.000	6.783																									6.783
	3	2020	NAVY	1.556	.000	1.556																									1.556
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

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Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1) (5)																															
	1	2018	NAVY	163.094	.000	163.094	-	13.591	13.591	13.591	13.591	13.591	13.591	13.591	13.591	13.591	13.591	13.591	13.591												.000
✓	1	2018	NAVY	4.668	4.668	.000																									.000
	2	2020	NAVY	18.711	.000	18.711						A -	-	-	-	-	-	-	-	-	-	-	-	1.559	1.559	1.559	1.559	1.559	1.559	1.559	7.797
	2	2021	NAVY	91.052	.000	91.052																		A -	-	-	-	-	-	-	91.052
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND																															
	3	2019	NAVY	6.783	.000	6.783				A -	-	-	-	-	-	-	-	-	-	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	1.376	.407
	3	2020	NAVY	1.556	.000	1.556												A -	-	-	-	-	-	-	-	-	-	.500	.500	.500	.056
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 3 / Small Arms Ammunition

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
4.1.1) A059, 5.56MM BALL, LOAD, ASSEMBLE AND PACK (LAP) (1) (5)																															
	1	2018	NAVY	163.094	163.094	.000																									.000
✓	1	2018	NAVY	4.668	4.668	.000																									.000
	2	2020	NAVY	18.711	10.914	7.797	1.559	1.559	1.559	1.559	1.560																				.000
	2	2021	NAVY	91.052	.000	91.052	7.588	7.588	7.588	7.588	7.588	7.588	7.588	7.588	7.588	7.588	7.588	7.588													.000
17.1.1) AC15, CAL .50 4 & 1 REDUCED RANGE LINKED, COMPLETE ROUND																															
	3	2019	NAVY	6.783	6.376	.407	.407																								.000
	3	2020	NAVY	1.556	1.500	.056	.056																								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1350 / Infantry Weapons Ammunition	**Item Number / Title [DODIC]:** 3 / Small Arms Ammunition

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	NORTHROP GRUMMAN (LCAAP) - INDEPENDENCE, MO	20,160	20,000,000	234,000,000	6	6	12	18	6	6	6	12
2	OLIN CORPS WINCHESTER - EAST ALTON, IL	20,160	232,000,000	810,000,000	6	6	12	18	6	6	7	13
3	OCR Global - Fairfax, VA			TBD	6	6	6	12	6	6	3	9

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 4 / CTG, 30 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.500	0.992	0.000	0.992
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.500	0.992	0.000	0.992
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.500**	**0.992**	**0.000**	**0.992**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - B30T, CTG, 30MM TARGET PRACTICE (TP) M788 Cost																		
Recurring Cost																		
1.1.1) B30T - CTG, 30MM TP M788 - LOAD, ASSEMBLE, AND PACK(†) (10)	-	-	0.000	-	-	0.000	25.85	9,186	0.237	27.59	16,968	0.468	-	-	0.000	27.59	16,968	0.468
1.1.2) B30T - CTG, 30MM TP M788 - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.012	-	-	0.020	-	-	0.000	-	-	0.020
1.1.3) B30T - CTG, 30MM TP M788 - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.001	-	-	0.008	-	-	0.000	-	-	0.008
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.250*	-	-	*0.496*	-	-	*0.000*	-	-	*0.496*
Subtotal: Hardware - B30T, CTG, 30MM TARGET PRACTICE (TP) M788 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.250***	**-**	**-**	***0.496***	**-**	**-**	***0.000***	**-**	**-**	***0.496***
Hardware - B30W, CTG, 30MM HIGH EXPLOSIVE DUAL PURPOSE (HEDP) M789 Cost																		
Recurring Cost																		
2.1.1) B30W - CTG, 30MM HEDP M789 - LOAD, ASSEMBLE, AND PACK(†) (11)	-	-	0.000	-	-	0.000	127.40	1,940	0.247	130.48	3,774	0.492	-	-	0.000	130.48	3,774	0.492
2.1.2) B30W - CTG, 30MM HEDP M789	-	-	0.000	-	-	0.000	-	-	0.002	-	-	0.002	-	-	0.000	-	-	0.002

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 4 / CTG, 30 MM, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
- PRODUCTION ENGINERRING																		
2.1.3) B30W - CTG, 30MM HEDP M789 - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.001	-	-	0.002	-	-	0.000	-	-	0.002
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.250*	-	-	*0.496*	-	-	*0.000*	-	-	*0.496*
Subtotal: Hardware - B30W, CTG, 30MM HIGH EXPLOSIVE DUAL PURPOSE (HEDP) M789 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.250***	**-**	**-**	***0.496***	**-**	**-**	***0.000***	**-**	**-**	***0.496***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.500**	**-**	**-**	**0.992**	**-**	**-**	**0.000**	**-**	**-**	**0.992**

(†) indicates the presence of a P-5a

Footnotes:

(10) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a larger quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost.

(11) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a larger quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1350 / Infantry Weapons Ammunition	Item Number / Title [DODIC]: 4 / CTG, 30 MM, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) B30T - CTG, 30MM TP M788 - LOAD, ASSEMBLE, AND PACK		2020 (12)	GENERAL DYNAMICS OTS (13) / MARION, IL	C / FFP	Rock Island Arsenal, IL	Mar 2020	Mar 2021	9,186	25.85	Y		Jan 2020
1.1.1) B30T - CTG, 30MM TP M788 - LOAD, ASSEMBLE, AND PACK		2021 (14)	NORTHROP GRUMMAN INNOVATION SYSTEMS (15) / PLYMOUTH, MN	C / FFP	Rock Island Arsenal, IL	Mar 2021	Mar 2022	16,968	27.59	Y		Jan 2020
2.1.1) B30W - CTG, 30MM HEDP M789 - LOAD, ASSEMBLE, AND PACK		2020 (16)	GENERAL DYNAMICS OTS (17) / MARION, IL	C / FFP	Rock Island Arsenal, IL	Mar 2020	Mar 2021	1,940	127.40	Y		Jan 2020
2.1.1) B30W - CTG, 30MM HEDP M789 - LOAD, ASSEMBLE, AND PACK		2021 (18)	NORTHROP GRUMMAN INNOVATION SYSTEMS (19) / PLYMOUTH, MN	C / FFP	Rock Island Arsenal, IL	Mar 2021	Mar 2022	3,774	130.48	Y		

Footnotes:

(12) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(13) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(14) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(15) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(16) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(17) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.
(18) Arny Contracting Command, Rock Island, IL plans to split total quantity evenly with two (2) contractors.
(19) Army Contracting Command, Rock Island, IL plans to split total quanity evenly with two (2) contractors.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.146	31.741	34.960	32.650	0.000	32.650	34.451	24.498	30.598	31.208	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.146	31.741	34.960	32.650	0.000	32.650	34.451	24.498	30.598	31.208	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.146**	**31.741**	**34.960**	**32.650**	**0.000**	**32.650**	**34.451**	**24.498**	**30.598**	**31.208**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Combat Support Munitions budget includes demolition items, hand held grenades, vehicle launched grenades, pyrotechnic devices, land mines, and non-lethal items.

Demolition items provide high explosives for the purpose of destroying or altering man-made or natural objects or obstacles. Demolition munitions charges include block charges, shaped charges, flexible-linear charges, explosive sheet, cable, canine explosive scent items, chain cutters, and military dynamite. They are used for general demolition, cutting, breaching, cratering, and destruction of abandoned equipment/ ammunition.

Also included in this profile are all hand held/vehicle launched grenades, pyrotechnics devices, and land mines used by Marine Corps ground forces. This includes colored smoke grenades, obscuration smoke grenades, various pyrotechnics used in training to simulate battlefield effects, and claymore mines.

Additionally, this budget line item also includes non-lethal munition variants such as; 12 gauge, 40mm grenades, diversionary grenades, and 81mm Non-lethal mortars. These munitions are intended to incapacitate, warn or drive off targeted personnel and/or materiel while minimizing permanent injury to personnel and damage to property in the target area or environment.

FY 2021 funding totals include $32.650M for Base and $0.0M for Overseas Contingency Operations (OCO). FY 2021 Base funding for budget requirements are in support of the National Defense Strategy.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	1 / Linear Charges, All Types	P-5a, P-21			- / 10.000	- / 24.241	- / 27.272	- / 16.076	- / 0.000	- / 16.076
P-5	2 / Grenades, All Types	P-5a, P-21			- / 4.146	- / 7.500	- / 2.894	- / 4.488	- / 0.000	- / 4.488
P-5	3 / Demolition Munitions, All Types	P-5a			- / 0.000	- / 0.000	- / 1.794	- / 1.095	- / 0.000	- / 1.095
P-5	4 / Non-Lethal Indirect Fire Munition	P-5a, P-21			- / 0.000	- / 0.000	- / 3.000	- / 10.991	- / 0.000	- / 10.991
P-40	**Total Gross/Weapon System Cost**				**- / 14.146**	**- / 31.741**	**- / 34.960**	**- / 32.650**	**- / 0.000**	**- / 32.650**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Budget Request: $32.650M

FY 2021 baseline funding is required for procurement of Hand Grenades (DODIC G881), Linear Charges (DODIC M913), 81mm Non-Lethal / Indirect Fire Munition (NL-IDFM) (DODIC C8NL), Grenade, Hand Diversionary, BTV-1 MK13 MOD0 (DODIC GG20), Military Dog Scent Kit (MDSK) items, M6 Electric Blasting Caps (DODIC M130), Grenade, Hand Smoke, White M83 (DODIC G982), and Mine, Antipersonnel Obstacle Breaching System MK7 MOD1 (APOBS) (DODIC MN79). All procured items will support required annual and pre-deployment training. FY 2021 funding is also required for Engineering Support In Production (ESIP). ESIP costs support engineering functions on produced units which includes configuration management, lot acceptance testing, and support for items currently in production. Additionally, this funding addresses any changes to the design, assuring that the ammunition is of the highest quality, and deals with any manufacturing concerns during these processes.

The $2.310M decrease from FY 2020 to FY 2021 reflects a decrease in the munitions requirement for Mine Clearing Line Charge (MCLC), and Demo Linear Charge (DODIC M913).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 1 / Linear Charges, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.000	24.241	27.272	16.076	0.000	16.076
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.000	24.241	27.272	16.076	0.000	16.076
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.000**	**24.241**	**27.272**	**16.076**	**0.000**	**16.076**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - A4 SERIES LINEAR DEMOLITION CHARGE M58 Cost																		
Recurring Cost																		
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP)(†) (1)	23,802.75	218	5.189	26,264.75	227	5.962	26,027.21	286	7.444	26,790.30	138	3.697	-	-	0.000	26,790.30	138	3.697
1.1.2) M913 COMP C-4(†)	14.83	322,223	4.779	19.84	420,372	8.340	20.24	370,139	7.492	20.64	255,556	5.275	-	-	0.000	20.64	255,556	5.275
1.1.3) M913 FUZE ELECTRIC M113A4 - GFM(†)	-	-	0.000	3,154.77	227	0.716	3,217.63	293	0.943	3,308.08	138	0.457	-	-	0.000	3,308.08	138	0.457
1.1.4) M913 PRODUCTION SUPPORT	-	-	0.032	-	-	0.054	-	-	0.137	-	-	0.028	-	-	0.000	-	-	0.028
1.1.5) FIRST ARTICLE ACCEPTANCE TEST	-	-	0.000	-	-	0.200	-	-	0.200	-	-	0.200	-	-	0.000	-	-	0.200
Subtotal: Recurring Cost	-	-	*10.000*	-	-	*15.272*	-	-	*16.216*	-	-	*9.657*	-	-	*0.000*	-	-	*9.657*
Subtotal: Hardware - A4 SERIES LINEAR DEMOLITION CHARGE M58 Cost	**-**	**-**	***10.000***	**-**	**-**	***15.272***	**-**	**-**	***16.216***	**-**	**-**	***9.657***	**-**	**-**	***0.000***	**-**	**-**	***9.657***
Hardware - MN79 ANTI-PERS OBSTACLE BREACHING SYSTEM Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 1 / Linear Charges, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)	-	-	0.000	12,475.16	361	4.503	13,928.06	757	10.544	11,284.24	493	5.563	-	-	0.000	11,284.24	493	5.563
2.1.2) MN79 PBXN-10 Type 2(†) (2)	-	-	0.000	27.97	900	0.025	-	-	0.000	29.33	1,233	0.036	-	-	0.000	29.33	1,233	0.036
2.1.3) MN79 PBXN-10 Type 1(†) (3)	-	-	0.000	20.26	18,050	0.366	-	-	0.000	21.24	24,650	0.524	-	-	0.000	21.24	24,650	0.524
2.1.4) MN79 Propellant Grain (Rocket)(†)	-	-	0.000	553.58	397	0.220	-	-	0.000	537.46	542	0.291	-	-	0.000	537.46	542	0.291
2.1.5) MN79 PRODUCTION SUPPORT	-	-	0.000	-	-	0.023	-	-	0.012	-	-	0.005	-	-	0.000	-	-	0.005
2.1.6) NON-RECURRING FIRST ARTICLE ACCEPTANCE TEST (FAAT)	-	-	0.000	-	-	0.332	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*5.469*	-	-	*10.556*	-	-	*6.419*	-	-	*0.000*	-	-	*6.419*
Subtotal: Hardware - MN79 ANTI-PERS OBSTACLE BREACHING SYSTEM Cost	**-**	**-**	***0.000***	**-**	**-**	***5.469***	**-**	**-**	***10.556***	**-**	**-**	***6.419***	**-**	**-**	***0.000***	**-**	**-**	***6.419***
Hardware - MLAC MICLIC Arresting Cable Cost																		
Recurring Cost																		
3.1.1) MLAC COMPLETE ROUND(†)	-	-	0.000	7,000.00	470	3.290	7,075.00	60	0.425	-	-	0.000	-	-	0.000	-	-	0.000
3.1.2) MLAC PRODUCT SUPPORT	-	-	0.000	-	-	0.210	-	-	0.075	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*3.500*	-	-	*0.500*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - MLAC MICLIC Arresting Cable Cost	**-**	**-**	***0.000***	**-**	**-**	***3.500***	**-**	**-**	***0.500***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**10.000**	**-**	**-**	**24.241**	**-**	**-**	**27.272**	**-**	**-**	**16.076**	**-**	**-**	**0.000**	**-**	**-**	**16.076**

(†) indicates the presence of a P-5a

Footnotes:

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 1 / Linear Charges, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

(1) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is procuring a smaller quantity than in FY 2020, this also impacts the unit cost.

(2) The increase in unit cost is due to an overall lower quantity being procured on the Army's contract in FY 2021 as compared to FY 2019. The Marine Corps is procuring a larger quantity in FY21. However, when combined with the Army's smaller quantity in FY 2021 the overall quantity drops significantly resulting in an increased unit cost.

(3) The increase in unit cost is due to an overall lower quantity being procured on the Army's contract in FY 2021 as compared to FY 2019. The Marine Corps is procuring a larger quantity in FY21. However, when combined with the Army's smaller quantity in FY 2021 the overall quantity drops significantly resulting in an increased unit cost.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 1 / Linear Charges, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP)(†)		2018	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2018	Sep 2020	218	23,801.00	Y		
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP)(†)		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2022	227	26,264.75	Y		
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP)(†)		2020	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Sep 2021	286	26,027.21	Y		
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP)(†)		2021	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	138	26,790.30	Y		
1.1.2) M913 COMP C-4(†)		2018	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2018	Jun 2018	322,223	14.83	Y		
1.1.2) M913 COMP C-4(†)		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Jun 2020	420,372	19.84	Y		
1.1.2) M913 COMP C-4(†)		2020	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Jun 2020	370,139	20.24	Y		
1.1.2) M913 COMP C-4(†)		2021	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Jun 2021	255,556	20.64	Y		
1.1.3) M913 FUZE ELECTRIC M113A4 - GFM		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2021	227	3,154.77	Y		
1.1.3) M913 FUZE ELECTRIC M113A4 - GFM		2020	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2022	293	3,217.63	Y		
1.1.3) M913 FUZE ELECTRIC M113A4 - GFM		2021	TO BE SELECTED / UNKNOWN	C / TBD	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	138	3,308.08	Y		
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)		2019	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Dec 2019	Dec 2021	350	12,475.16	Y		
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)	✓	2019	CHEMRING ORDANCE INC / PERRY, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2019	Aug 2021	11	12,475.16	Y		
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)		2020	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Sep 2021	688	13,928.06	Y		
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)	✓	2020	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Sep 2021	69	13,928.06	Y		
2.1.1) MN79 Load, Assemble, Pack (LAP)(†)		2021	TO BE SELECTED / UNKNOWN	C / TBD	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	493	11,284.24	Y		
2.1.2) MN79 PBXN-10 Type 2		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2020	Jul 2021	875	27.97	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 1 / Linear Charges, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.2) MN79 PBXN-10 Type 2	✓	2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2020	Jul 2021	25	27.97	Y		
2.1.2) MN79 PBXN-10 Type 2		2021	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2021	Jul 2022	1,233	29.33	Y		
2.1.3) MN79 PBXN-10 Type 1		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2020	Jul 2021	17,500	20.26	Y		
2.1.3) MN79 PBXN-10 Type 1	✓	2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2020	Jul 2021	550	20.26	Y		
2.1.3) MN79 PBXN-10 Type 1		2021	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2021	Jul 2022	24,650	21.24	Y		
2.1.4) MN79 Propellant Grain (Rocket)		2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2021	385	553.58	Y		
2.1.4) MN79 Propellant Grain (Rocket)	✓	2019	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2021	12	553.58	Y		
2.1.4) MN79 Propellant Grain (Rocket)		2021	TO BE SELECTED / UNKNOWN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	542	537.46	Y		
3.1.1) MLAC COMPLETE ROUND		2019	NSWC INDIAND HEAD / INDIAN HEAD, MD	TBD	NSWC Indian Head, MD	Mar 2020	Sep 2020	470	7,000.00	Y		
3.1.1) MLAC COMPLETE ROUND		2020	NSWC INDIAND HEAD / INDIAN HEAD, MD	TBD	NSWC Indian Head, MD	Oct 2019	Apr 2020	60	7,075.00	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1550 / Combat Support Munitions | **Item Number / Title [DODIC]:** 1 / Linear Charges, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP) [1]																															
	2	2018	NAVY	.218	.000	.218												A -	-	-	-	-	-	-	-	-	-	-	-	-	.218
	1	2019	NAVY	.227	.000	.227																									.227
	1	2020	NAVY	.286	.000	.286																									.286
	1	2021	NAVY	.138	.000	.138																									.138
1.1.2) M913 COMP C-4																															
	3	2018	NAVY	322.223	.000	322.223						A -	-	-	26.852	26.852	26.852	26.852	26.852	26.852	26.852	26.852	26.852	26.852	26.852	26.851					.000
	4	2019	NAVY	420.372	.000	420.372																									420.372
	4	2020	NAVY	370.139	.000	370.139																									370.139
	4	2021	NAVY	255.556	.000	255.556																									255.556
2.1.1) MN79 Load, Assemble, Pack (LAP)																															
	5	2019	NAVY	.350	.000	.350																									.350
✓	5	2019	NAVY	.011	.000	.011																							A -	-	.011
	6	2020	NAVY	.688	.000	.688																									.688
✓	6	2020	NAVY	.069	.000	.069																									.069
	6	2021	NAVY	.493	.000	.493																									.493
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1550 / Combat Support Munitions | **Item Number / Title [DODIC]:** 1 / Linear Charges, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP) [1]																															
	2	2018	NAVY	.218	.000	.218	-	-	-	-	-	-	-	-	-	-	-	.033	.056	.056	.073										.000
	1	2019	NAVY	.227	.000	.227						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.227
	1	2020	NAVY	.286	.000	.286						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.024	.262
	1	2021	NAVY	.138	.000	.138																		A -	-	-	-	-	-	-	.138
1.1.2) M913 COMP C-4																															
	3	2018	NAVY	322.223	322.223	.000																									.000
	4	2019	NAVY	420.372	.000	420.372						A -	-	-	32.518	35.259	35.259	35.259	35.260	35.260	35.259	35.259	35.259	35.260	35.260	35.260					.000
	4	2020	NAVY	370.139	.000	370.139						A -	-	-	30.844	30.845	30.845	30.845	30.845	30.845	30.845	30.845	30.845	30.845	30.845	30.845					.000
	4	2021	NAVY	255.556	.000	255.556																		A -	-	-	18.139	21.583	21.583	21.583	172.668
2.1.1) MN79 Load, Assemble, Pack (LAP)																															
	5	2019	NAVY	.350	.000	.350			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.350
✓	5	2019	NAVY	.011	.000	.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.011		.000
	6	2020	NAVY	.688	.000	.688						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.031	.657
✓	6	2020	NAVY	.069	.000	.069						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.069	.000
	6	2021	NAVY	.493	.000	.493																		A -	-	-	-	-	-	-	.493
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1550 / Combat Support Munitions | **Item Number / Title [DODIC]:** 1 / Linear Charges, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) M913 CHG DEMO LINEAR M58 SERIES A4, LOAD, ASSEMBLE, PACK (LAP) (1)																															
	2	2018	NAVY	.218	.218	.000																									.000
	1	2019	NAVY	.227	.000	.227	-	-	-	-	-	.016	.025	.018	.018	.018	.018	.019	.019	.019	.019	.019	.019								.000
	1	2020	NAVY	.286	.024	.262	.024	.024	.024	.024	.024	.024	.024	.024	.024	.023	.023														.000
	1	2021	NAVY	.138	.000	.138	-	-	-	-	-	-	-	-	-	-	-	.075	.063												.000
1.1.2) M913 COMP C-4																															
	3	2018	NAVY	322.223	322.223	.000																									.000
	4	2019	NAVY	420.372	420.372	.000																									.000
	4	2020	NAVY	370.139	370.139	.000																									.000
	4	2021	NAVY	255.556	82.888	172.668	21.583	21.583	21.583	21.583	21.583	21.584	21.584	21.585																	.000
2.1.1) MN79 Load, Assemble, Pack (LAP)																															
	5	2019	NAVY	.350	.000	.350	-	-	.251	.099																					.000
✓	5	2019	NAVY	.011	.011	.000																									.000
	6	2020	NAVY	.688	.031	.657	.013	.013	.007	.013	.016	.010	.150	.100	.100	.200	.035														.000
✓	6	2020	NAVY	.069	.069	.000																									.000
	6	2021	NAVY	.493	.000	.493	-	-	-	-	-	-	-	-	-	-	-	.180	.200	.093	.020										.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 1 / Linear Charges, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TO BE SELECTED - UNKNOWN	300	900	1,200	8	8	24	32	6	6	18	24
2	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA	300	900	1,200	8	8	24	32	6	6	18	24
3	BAE ORDNANCE SYSTEMS - KINGSPORT, TN	200,000	400,000	600,000	0	0	3	3	0	0	3	3
4	TO BE SELECTED - UNKNOWN	200,000	400,000	600,000	0	0	3	3	0	0	3	3
5	CHEMRING ORDANCE INC - PERRY, FL	50	130	775	8	8	21	29	6	6	18	24
6	TO BE SELECTED - UNKNOWN	50	130	775	8	8	21	29	6	6	18	24

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 2 / Grenades, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.146	7.500	2.894	4.488	0.000	4.488
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.146	7.500	2.894	4.488	0.000	4.488
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.146**	**7.500**	**2.894**	**4.488**	**0.000**	**4.488**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - G881, GREN HAND, FRAG M67 W/ CONF CLIP Cost																		
Recurring Cost																		
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK(†) (4)	-	-	0.000	43.16	44,023	1.900	42.51	64,580	2.745	44.90	56,926	2.556	-	-	0.000	44.90	56,926	2.556
1.1.2) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.100	-	-	0.146	-	-	0.931	-	-	0.000	-	-	0.931
1.1.3) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.003	-	-	0.005	-	-	0.000	-	-	0.005
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*2.000*	-	-	*2.894*	-	-	*3.492*	-	-	*0.000*	-	-	*3.492*
Subtotal: Hardware - G881, GREN HAND, FRAG M67 W/ CONF CLIP Cost	**-**	**-**	***0.000***	**-**	**-**	***2.000***	**-**	**-**	***2.894***	**-**	**-**	***3.492***	**-**	**-**	***0.000***	**-**	**-**	***3.492***
Hardware - G982, GREN HAND, SMOKE WHITE TA M83 Cost																		
Recurring Cost																		
4.1.1) G982 - GREN HAND, SMOKE WHITE TA M83 -	-	-	0.000	-	-	0.000	-	-	0.000	61.05	4,565	0.279	-	-	0.000	61.05	4,565	0.279

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 2 / Grenades, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
LOAD, ASSEMBLE, AND PACK(†)																		
4.1.2) G982 - FUZE, HAND GRENADE M201(†)	-	-	0.000	-	-	0.000	-	-	0.000	10.04	4,747	0.048	-	-	0.000	10.04	4,747	0.048
4.1.3) G982 - GRENADE, METAL PARTS / TOP(†)	-	-	0.000	-	-	0.000	-	-	0.000	1.21	4,930	0.006	-	-	0.000	1.21	4,930	0.006
4.1.4) G982 - GRENADE, METAL PARTS / BODY(†)	-	-	0.000	-	-	0.000	-	-	0.000	1.21	4,930	0.006	-	-	0.000	1.21	4,930	0.006
4.1.5) G982 - GREN HAND, SMOKE WHITE TA M83 - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.653	-	-	0.000	-	-	0.653
4.1.6) G982 - GREN HAND, SMOKE WHITE TA M83 - QUALITY ASSURANCE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.004	-	-	0.000	-	-	0.004
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.996*	-	-	*0.000*	-	-	*0.996*
Subtotal: Hardware - G982, GREN HAND, SMOKE WHITE TA M83 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.996***	**-**	**-**	***0.000***	**-**	**-**	***0.996***
Hardware - GG24, GREN 66MM, SMOKE SCREENING VEL. LAUNCHED, (SSVL) MK1 MOD0 Cost																		
Recurring Cost																		
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK(†)	185.49	21,413	3.972	179.62	30,620	5.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.2) GG24 - GREN 66MM, SSVL MK1 MOD0 - PRODUCTION ENGINEERING	-	-	0.013	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.3) GG24 - GREN 66MM, SSVL MK1 MOD0 - QUALITY ASSURANCE	-	-	0.002	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.1.4) GG24 - GREN 66MM, SSVL MK1 MOD0 -	-	-	0.159	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 2 / Grenades, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
NONRECURRING - FAAT																		
Subtotal: Recurring Cost	-	-	*4.146*	-	-	*5.500*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - GG24, GREN 66MM, SMOKE SCREENING VEL. LAUNCHED, (SSVL) MK1 MOD0 Cost	**-**	**-**	***4.146***	**-**	**-**	***5.500***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**4.146**	**-**	**-**	**7.500**	**-**	**-**	**2.894**	**-**	**-**	**4.488**	**-**	**-**	**0.000**	**-**	**-**	**4.488**

(†) indicates the presence of a P-5a

Footnotes:

(4) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a larger quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 2 / Grenades, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK(†)		2019	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX / TEXARKANA, TX	C / FFP	ROCK ISLAND ARSENAL, IL	Dec 2019	Jun 2021	44,023	43.16	Y		Sep 2019
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK(†)		2020	TO BE SELECTED / TO BE SELECTED	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2022	64,580	42.51	Y		Jan 2020
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK(†)		2021	TO BE SELECTED / TO BE SELECTED	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	56,926	44.90	Y		Jan 2021
4.1.1) G982 - GREN HAND, SMOKE WHITE TA M83 - LOAD, ASSEMBLE, AND PACK		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	MIPR	ROCK ISLAND ARSENAL, IL	Mar 2021	Jun 2022	4,565	61.05	Y		Jan 2021
4.1.2) G982 - FUZE, HAND GRENADE M201		2021	TBD / TBD	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	4,747	10.04	Y		Jan 2021
4.1.3) G982 - GRENADE, METAL PARTS / TOP		2021	TOOL MASTERS INC / TUSCUMBIA, AL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Nov 2021	4,930	1.21	Y		Jan 2021
4.1.4) G982 - GRENADE, METAL PARTS / BODY		2021	TOOL MASTERS INC / TUSCUMBIA, AL	C / FFP	ROCK ISLAND ARSENAL,IL	Mar 2021	Nov 2021	4,930	1.21	Y		Jan 2021
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK(†)		2018	AMERICAN RHEINMETALL MUNITIONS@STAFFORD, VA / NEUEMBURG, GERMANY	C / FFP	ROCK ISLAND, IL	Aug 2018	Mar 2020	21,413	185.49	Y		May 2018
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK(†)		2019	AMERICAN RHEINMETALL MUNITIONS@STAFFORD, VA / NEUEMBURG, GERMANY	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2019	Jun 2020	30,620	179.62	Y		Jan 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 2 / Grenades, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK [4]																															
	1	2019	NAVY	44.023	.000	44.023																									44.023
	2	2020	NAVY	64.580	.000	64.580																									64.580
	2	2021	NAVY	56.926	.000	56.926																									56.926
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK																															
	3	2018	NAVY	21.413	.000	21.413											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	21.413
	3	2019	NAVY	30.620	.000	30.620																		A -	-	-	-	-	-	-	30.620
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 2 / Grenades, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK (4)																															
	1	2019	NAVY	44.023	.000	44.023			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.313	41.710				.000
	2	2020	NAVY	64.580	.000	64.580						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.580
	2	2021	NAVY	56.926	.000	56.926																		A -	-	-	-	-	-	-	56.926
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK																															
	3	2018	NAVY	21.413	.000	21.413	-	-	-	-	-	7.168	7.168	7.077																	.000
	3	2019	NAVY	30.620	.000	30.620	-	-	-	-	-	-	-	-	7.168	7.168	7.906	8.378													.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 2 / Grenades, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) G881 - GREN HAND, FRAG M67 W/ CONF CLIP - LOAD, ASSEMBLE, AND PACK [4]																															
	1	2019	NAVY	44.023	44.023	.000																									.000
	2	2020	NAVY	64.580	.000	64.580	-	-	-	-	-	21.310	21.630	18.000	3.640																.000
	2	2021	NAVY	56.926	.000	56.926	-	-	-	-	-	-	-	-	-	-	-	15.720	15.750	17.480	7.976										.000
5.1.1) GG24 - GREN 66MM, SSVL MK1 MOD0 - LOAD, ASSEMBLE, AND PACK																															
	3	2018	NAVY	21.413	21.413	.000																									.000
	3	2019	NAVY	30.620	30.620	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 2 / Grenades, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DAY&ZIMMERMAN LONE STAR LLC, TEXARKANA, TX - TEXARKANA, TX	360,000	600,000	1,200,000	8	8	24	32	6	6	18	24
2	TO BE SELECTED - TO BE SELECTED	360,000	600,000	1,200,000	8	8	24	32	6	6	18	24
3	AMERICAN RHEINMETALL MUNITIONS@STAFFORD, VA - NEUEMBURG, GERMANY	200	15,000	35,000	8	8	18	26	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 3 / Demolition Munitions, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	1.794	1.095	0.000	1.095
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	1.794	1.095	0.000	1.095
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**1.794**	**1.095**	**0.000**	**1.095**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - DWDN Light Weight Disposable Disrupter Cost																		
Recurring Cost																		
1.1.1) DWDN COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	204.30	2,403	0.491	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.491*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - DWDN Light Weight Disposable Disrupter Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.491***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - M130 - Cap, Blasting Electric M6 Cost																		
Recurring Cost																		
2.1.1) M130 COMPLETE ROUND(†) (5)	-	-	0.000	-	-	0.000	32.27	11,096	0.358	35.54	21,808	0.775	-	-	0.000	35.54	21,808	0.775
2.1.2) M130 PRODUCTION SUPPORT	-	-	0.000	-	-	0.000	-	-	0.042	-	-	0.145	-	-	0.000	-	-	0.145
2.1.3) NON - RECURRING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.076	-	-	0.000	-	-	0.076
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.400*	-	-	*0.996*	-	-	*0.000*	-	-	*0.996*
Subtotal: Hardware - M130 - Cap, Blasting Electric M6 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.400***	**-**	**-**	***0.996***	**-**	**-**	***0.000***	**-**	**-**	***0.996***
Hardware - MM46 CHARGE DEMOLITION FLSC 225 GR/FT Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 3 / Demolition Munitions, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.1.1) MM46 COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	55.71	3,590	0.200	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.200*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - MM46 CHARGE DEMOLITION FLSC 225 GR/FT Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.200***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - MM47 CHARGE DEMOLITION FLSC 400 GR/FT Cost																		
Recurring Cost																		
4.1.1) MM47 COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	77.02	7,790	0.600	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.600*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - MM47 CHARGE DEMOLITION FLSC 400 GR/FT Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.600***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - Military Dog Scent Kit Items Cost																		
Recurring Cost																		
5.1.1) DOG SCENT KITS	-	-	0.000	-	-	0.000	-	-	0.103	-	-	0.099	-	-	0.000	-	-	0.099
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.103*	-	-	*0.099*	-	-	*0.000*	-	-	*0.099*
Subtotal: Hardware - Military Dog Scent Kit Items Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.103***	**-**	**-**	***0.099***	**-**	**-**	***0.000***	**-**	**-**	***0.099***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.794**	**-**	**-**	**1.095**	**-**	**-**	**0.000**	**-**	**-**	**1.095**

(†) indicates the presence of a P-5a

Footnotes:

(5) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a larger quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 3 / Demolition Munitions, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) DWDN COMPLETE ROUND	✓	2020	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	C / FFP	NSWC CRANE, IN	Oct 2019	Apr 2020	2,403	204.30	Y		
2.1.1) M130 COMPLETE ROUND		2020	R. STRESAU LABORATORY INC. / SPOONER, WI	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2020	Mar 2021	11,096	32.27	Y		
2.1.1) M130 COMPLETE ROUND		2021	TBD / TBD	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	21,808	35.54	Y		
3.1.1) MM46 COMPLETE ROUND		2020	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NSWC CRANE, IN	Jun 2020	Jun 2021	3,590	55.71	Y		
4.1.1) MM47 COMPLETE ROUND		2020	CRANE ARMY AMMUNITION ACTIVITY1 / NSWC CRANE, IND	MIPR	NSWC CRANE, IN	Jun 2020	Jun 2021	7,790	77.02	Y		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 4 / Non-Lethal Indirect Fire Munition
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	3.000	10.991	0.000	10.991
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	3.000	10.991	0.000	10.991
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**3.000**	**10.991**	**0.000**	**10.991**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - C8NL, 81MM NON-LETHAL INDIRECT FIRE MUNITION Cost																		
Recurring Cost																		
1.1.1) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - COMPLETE ROUND(†)	-	-	0.000	-	-	0.000	-	-	0.000	1,500.00	4,673	7.010	-	-	0.000	1,500.00	4,673	7.010
1.1.2) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - PRODUCTION ENGINEERING	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.395	-	-	0.000	-	-	0.395
1.1.3) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - ACCEPT TEST	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.090	-	-	0.000	-	-	0.090
1.1.4) 81MM, NON-LETHAL INDIRECT FIRE MUNITION, NON - RECURRING / FAAT	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.500
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*7.995*	-	-	*0.000*	-	-	*7.995*
Subtotal: Hardware - C8NL, 81MM NON-LETHAL INDIRECT FIRE MUNITION Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***7.995***	**-**	**-**	***0.000***	**-**	**-**	***7.995***
Hardware - GG20, GRENADE, HAND DIVERSIONARY, BTV-1 EL, MK13 MOD0 Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1550 / Combat Support Munitions	Item Number / Title [DODIC]: 4 / Non-Lethal Indirect Fire Munition
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.1.1) GG20, GRENADE, HAND DIVERSIONARY, MK13 MOD0 - LOAD, ASSEMBLE, AND PACK(†) (6)	-	-	0.000	-	-	0.000	55.08	53,277	2.934	56.46	51,974	2.934	-	-	0.000	56.46	51,974	2.934
2.1.2) GG20, GRENADE, HAND DIVERSIONARY, MK13 MOD0 - PRODUCTION ENGEERING	-	-	0.000	-	-	0.000	-	-	0.050	-	-	0.046	-	-	0.000	-	-	0.046
2.1.3) GG20, GRENADE, HAND DIVERSIONARY, MK13 MOD0 - CONTRACTING FEE	-	-	0.000	-	-	0.000	-	-	0.016	-	-	0.016	-	-	0.000	-	-	0.016
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*3.000*	-	-	*2.996*	-	-	*0.000*	-	-	*2.996*
Subtotal: Hardware - GG20, GRENADE, HAND DIVERSIONARY, BTV-1 EL, MK13 MOD0 Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***3.000***	**-**	**-**	***2.996***	**-**	**-**	***0.000***	**-**	**-**	***2.996***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**3.000**	**-**	**-**	**10.991**	**-**	**-**	**0.000**	**-**	**-**	**10.991**

(†) indicates the presence of a P-5a

Footnotes:

(6) FY 2021 pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. The USMC is also procuring a smaller quantity than in FY 2020, however the quantity of the total buy including all services on the Army contract impacts the unit cost as well.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 4 / Non-Lethal Indirect Fire Munition

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty *(Each)*	Unit Cost *($)*	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - COMPLETE ROUND(†)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2021	Jul 2023	4,673	1,500.00	Y		Oct 2020
2.1.1) GG20, GRENADE, HAND DIVERSIONARY, MK13 MOD0 - LOAD, ASSEMBLE, AND PACK		2020	RHEINMETALL / GERMANY	C / FFP	NSWC DIVISION, CRANE, IN	Jan 2020	Jan 2021	53,277	55.08	Y		Oct 2019
2.1.1) GG20, GRENADE, HAND DIVERSIONARY, MK13 MOD0 - LOAD, ASSEMBLE, AND PACK		2021	RHEINMETALL / GERMANY	C / FFP	NSWC DIVISION, CRANE, IN	Jan 2021	Jan 2022	51,974	56.46	Y		Oct 2020

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 4 / Non-Lethal Indirect Fire Munition

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - COMPLETE ROUND																															
	1	2021	NAVY	4,673	0	4,673																A -	-	-	-	-	-	-	-	-	4,673
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 4 / Non-Lethal Indirect Fire Munition

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) 81MM, NON-LETHAL INDIRECT FIRE MUNITION - COMPLETE ROUND																															
	1	2021	NAVY	4,673	0	4,673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,673			0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1550 / Combat Support Munitions	**Item Number / Title [DODIC]:** 4 / Non-Lethal Indirect Fire Munition

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	48,000	60,000	84,000	6	10	30	40	6	10	30	40

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1630 / Ammo Modernization

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	94.748	15.001	14.325	15.144	0.000	15.144	15.182	15.480	15.763	16.065	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.748	15.001	14.325	15.144	0.000	15.144	15.182	15.480	15.763	16.065	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.748**	**15.001**	**14.325**	**15.144**	**0.000**	**15.144**	**15.182**	**15.480**	**15.763**	**16.065**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Ammunition Modernization budget supports the procurement of technical analysis and labor from Naval Surface Warfare Centers (NSWC) Corona, Crane, Indian Head, and Dahlgren Divisions to enable acquisition of modernized ground delivered class V(W) ammunition. This line supports technical efforts in systems assessment, service life analysis, test and evaluation, technical drawing packages (TDPs), and malfunction investigations.

Ammo Modernization is a required on-going level of effort program. This program will exist for as long as the USMC maintains ammunition.

FY 2021 funding totals include $15.144M for Base and $0.00M for Overseas Contingency Operations (OCO).

This funding supports life cycle management functions to maintain the USMC ammunition inventory through quality assurance programs which are vital to predicting service life trends and keeping the warfighter safe during training and operational scenarios.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1630 / Ammo Modernization

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Ammo Modernization				- / 94.748	- / 15.001	- / 14.325	- / 15.144	- / -	- / 15.144
P-40	**Total Gross/Weapon System Cost**				**- / 94.748**	**- / 15.001**	**- / 14.325**	**- / 15.144**	**- / 0.000**	**- / 15.144**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $15.144M

FY 2021 Baseline funding will support the modernization of ground delivered class V(W) ammunition and associated components, as well as quality evaluation and assessment. Funding will support the efforts associated with service life accelerated age testing, malfunctions, and quality assurance. Ammunition Modernization addresses the total life cycle management of ammunitions through cyclic testing, surveillance, and destructive testing to assure safety, reliability, performance and combat readiness of ammunition assets.

The budget request increase of $.819M from FY 2020 to FY 2021 provides support needed for the linear charge and missile modernization programs.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1630 / Ammo Modernization	**Aggregated Items Title:** Ammo Modernization (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Ammo Modernization																				
1.1) AM01, 40MM AMMO MOD	A		-	-	8.881	-	-	-	-	-	0.439	-	-	0.557	-	-	-	-	-	0.557
1.2) AM02, ROCKETS AMMO MOD	A		-	-	21.219	-	-	-	-	-	2.784	-	-	2.840	-	-	-	-	-	2.840
1.3) AM03, LINE CHARGE AMMO MOD	A		-	-	8.736	-	-	-	-	-	2.541	-	-	2.711	-	-	-	-	-	2.711
1.4) AM04, COMPONENTS AMMO MOD	A		-	-	10.366	-	-	-	-	-	2.866	-	-	2.921	-	-	-	-	-	2.921
1.5) AM05, MISSILE COMP AMMO MOD	A		-	-	21.584	-	-	1.751	-	-	2.882	-	-	3.245	-	-	-	-	-	3.245
1.6) AM06, QUAL EVAL AMMO MOD	A		-	-	23.886	-	-	13.250	-	-	2.813	-	-	2.870	-	-	-	-	-	2.870
1.7) AMMO, AMMO MOD	A		-	-	0.076	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Ammo Modernization			**-**	**-**	***94.748***	**-**	**-**	***15.001***	**-**	**-**	***14.325***	**-**	**-**	***15.144***	**-**	**-**	**-**	**-**	**-**	***15.144***
Total			**-**	**-**	**94.748**	**-**	**-**	**15.001**	**-**	**-**	**14.325**	**-**	**-**	**15.144**	**-**	**-**	**-**	**-**	**-**	**15.144**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Footnotes:

(1) The Ammo Modernization budget supports a level of effort program; this includes unforeseen requirement updates during the year of execution, which can cause P40A budget exhibit discrepancies between President's Budget submissions. The United States Marine Corps (USMC), Program Manager - Ammunition is responsible for the entire life cycle of the ammunition inventory. This is an on-going effort and is required for as long as the USMC maintains ammunition. The Ammo Modernization budget pays for necessary technical and programmatic services.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	105.741	113.582	207.601	59.539	0.000	59.539	199.718	137.834	186.268	198.278	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	105.741	113.582	207.601	59.539	0.000	59.539	199.718	137.834	186.268	198.278	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**105.741**	**113.582**	**207.601**	**59.539**	**0.000**	**59.539**	**199.718**	**137.834**	**186.268**	**198.278**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Artillery Munitions includes all 155mm artillery ammunition components. The 155mm artillery components are fired from M777 howitzers, and include: primer, propellant, projectile, and fuze. High explosive artillery ammunition is used against personnel, trucks, electronic surveillance and target acquisition devices, supply points, command and control and communications installations, and mechanized and armored forces. Precision-guided artillery provides accurate, first round fire-for-effect capability, and can achieve reduced collateral damage. Illumination cartridges are used to illuminate the battlefield with light either in visual or near Infrared Spectrum. Smoke cartridges are used to provide obscuration on the battlefield and to mark locations. Included are artillery fuzes such as; point detonating, multi-option, electronic time and precision guided.

FY 2021 budget request includes $59.539M for Baseline.

[P40A / Artillery, All Types]: Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-40a	Artillery, All Types	P-5a, P-21			- / 86.373	- / 99.986	- / 133.520	- / 19.301	- / -	- / 19.301
P-5	1 / Fuze, All Types	P-5a, P-21			- / 19.368	- / 13.596	- / 74.081	- / 40.238	- / 0.000	- / 40.238
P-40	**Total Gross/Weapon System Cost**				**- / 105.741**	**- / 113.582**	**- / 207.601**	**- / 59.539**	**- / 0.000**	**- / 59.539**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $59.539M

FY 2021 baseline funding will support the procurement of 155mm High Explosive (HE) M795 with IMX-101 (DODIC DA54). The DA54 is the prime round for the Light Weight 155mm Cannon/Howitzer/Gun/ Artillery piece. The funding will also support the procurement of the prime 155mm HE Training Projectile M1122E1 (DA68).

FY 2021 funds are also required to support the procurement of the Precision Guidance Kit (PGK) fuze (DODIC NA29). The NA29 technology provides a first-of-its-kind "near-precision" capability. PGK contains a Global Positioning System (GPS) guidance kit with fuzing functions and an integrated GPS receiver to correct the inherent errors associated with ballistic firing solutions. The PGK capability is essential to providing commanders the ability to engage assigned targets while minimizing collateral damage and reducing the number of artillery projectiles required to attack targets.

The decrease of $148.062M from FY 2020 to FY 2021 is attributed to funding being reprioritized while ensuring the Marine Corps continues to evolve toward a force that is aligned with the National Defense Strategy.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	**Aggregated Items Title:** Artillery, All Types (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) D528 Projectile, 155mm Smoke White Phosphorus M825 (2)																				
1.1) D528 Hardware (3)(†)	A		-	-	-	-	-	-	1,976.76	11,346	22.428	2,016.69	5,573	11.239	-	-	-	2,016.69	5,573	11.239
1.2) D528 Production Engineering (4)	A		-	-	-	-	-	-	-	-	0.524	-	-	1.002	-	-	-	-	-	1.002
1.3) D528 Acceptance Testing (5)	A		-	-	-	-	-	-	-	-	0.110	-	-	0.210	-	-	-	-	-	0.210
Subtotal: 1) D528 Projectile, 155mm Smoke White Phosphorus M825			**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***23.062***	**-**	**-**	***12.451***	**-**	**-**	**-**	**-**	**-**	***12.451***
2) D529 155mm HE M795 w/TNT																				
2.1) D529 M795 LAP(†)	A		148.39	71,669	10.635	150.96	16,496	2.490	-	-	-	-	-	-	-	-	-	-	-	-
2.2) D529 M795 Metal Parts(†)	A		380.69	73,102	27.829	388.30	16,496	6.405	-	-	-	-	-	-	-	-	-	-	-	-
2.3) D529 TNT Supplemental Charge(†)	A		12.35	73,102	0.903	12.60	16,496	0.208	-	-	-	-	-	-	-	-	-	-	-	-
2.4) D529 TNT TYPE I FLAKE (TRINITROTOLUENE)(†)	A		4.77	1,935,063	9.230	4.77	494,880	2.361	-	-	-	-	-	-	-	-	-	-	-	-
2.5) D529 Wooden Pallets(†)	A		95.74	9,317	0.892	97.68	2,062	0.201	-	-	-	-	-	-	-	-	-	-	-	-
2.6) D529 Production Engineering	A		-	-	1.409	-	-	0.851	-	-	-	-	-	-	-	-	-	-	-	-
2.7) D529 Acceptance Testing	A		-	-	0.625	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) D529 155mm HE M795 w/ TNT			**-**	**-**	***51.523***	**-**	**-**	***12.816***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
3) DA51 155mm HE Training Projectile M1122																				
3.1) DA51 Load, Assemble & Pack (LAP)(†)	A		322.85	79,637	25.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2) DA51 Wooden Pallet(†)	A		115.81	10,353	1.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3) DA51 Supplemental Charge, PBXN9(†)	A		18.63	81,230	1.513	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.4) DA51 TNT Type I Flake(†)	A		4.77	238,911	1.140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Aggregated Items Title: Artillery, All Types (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.5) DA51 Plug, Lifting, Meltable for IM(†)	A		7.90	81,230	0.642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.6) DA51 Production Engineering	A		-	-	0.281	-	-	1.064	-	-	-	-	-	-	-	-	-	-	-	-
3.7) DA51 ACCEPTANCE TESTING	A		-	-	0.550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.8) DA51 Government Furnished Material	A		-	-	-1.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) DA51 155mm HE Training Projectile M1122			**-**	**-**	***29.897***	**-**	**-**	***1.064***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
4) DA54 155mm HE M795 W/IMX (6)																				
4.1) DA54 Load, Assemble, Pack (LAP)(†)	A		-	-	-	281.75	68,913	19.416	235.74	86,986	20.506	293.13	3,500	1.026	-	-	-	293.13	3,500	1.026
4.2) DA54 MELTABLE FUZE PLUG(†)	A		-	-	-	10.20	70,291	0.717	10.40	88,726	0.923	10.61	4,000	0.042	-	-	-	10.61	4,000	0.042
4.3) DA54 Explosive Fill IMX 104 (7)(†)	A		-	-	-	20.23	68,913	1.394	22.78	70,316	1.602	24.39	3,500	0.085	-	-	-	24.39	3,500	0.085
4.4) DA54 Supplementary Charge, PBXN9(†)	A		-	-	-	19.31	70,291	1.357	19.37	88,726	1.719	22.44	4,000	0.090	-	-	-	22.44	4,000	0.090
4.5) DA54 Wooden Pallets(†)	A		-	-	-	135.59	8,959	1.215	122.39	7,696	0.942	124.88	500	0.062	-	-	-	124.88	500	0.062
4.6) DA54 Explosive Fill IMX-101 (8)(†)	A		-	-	-	14.78	2,274,129	33.612	16.49	2,627,810	43.333	15.40	132,000	2.033	-	-	-	15.40	132,000	2.033
4.7) DA54 M795 IM Metal Part(†)	A		-	-	-	379.81	70,291	26.697	437.85	75,022	32.848	403.54	4,000	1.614	-	-	-	403.54	4,000	1.614
4.8) DA54 Production Engineering			-	-	-	-	-	0.983	-	-	2.094	-	-	1.604	-	-	-	-	-	1.604
4.9) DA54 Acceptance Testing			-	-	-	-	-	0.715	-	-	0.459	-	-	0.294	-	-	-	-	-	0.294
Subtotal: 4) DA54 155mm HE M795 W/IMX			**-**	**-**	***0.000***	**-**	**-**	***86.106***	**-**	**-**	***104.426***	**-**	**-**	***6.850***	**-**	**-**	**-**	**-**	**-**	***6.850***
5) DA58 155mm Extended Range, M982 Excalibur 1B																				
5.1) DA58 Complete Round(†)	A		65,681.16	69	4.532	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2) DA58 Container Excalibur(†)	A		2,101.45	69	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	**Aggregated Items Title:** Artillery, All Types (1)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.3) DA58 Production Engineering	A		-	-	0.276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 5) DA58 155mm Extended Range, M982 Excalibur 1B			**-**	**-**	***4.953***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
8) DA67, Chg Prop 155mm (MACS) M232A2																				
8.1) DA67 Load, Assemble, Pack (LAP)(†)	A		-	-	-	-	-	-	53.25	28,114	1.497	-	-	-	-	-	-	-	-	-
8.2) DA67, Propellant, M31A2(†)	A		-	-	-	-	-	-	20.32	135,509	2.754	-	-	-	-	-	-	-	-	-
8.3) DA67 Container, M232A1(†)	A		-	-	-	-	-	-	62.15	5,903	0.367	-	-	-	-	-	-	-	-	-
8.4) DA67 Combustable Cases F/155MM(†)	A		-	-	-	-	-	-	44.68	28,957	1.294	-	-	-	-	-	-	-	-	-
8.5) DA67 Ignition Propellant, MACS(†)	A		-	-	-	-	-	-	11.30	1,828	0.021	-	-	-	-	-	-	-	-	-
8.6) DA67 Production Engineering	A		-	-	-	-	-	-	-	-	0.058	-	-	-	-	-	-	-	-	-
8.7) DA67 Acceptance Testing	A		-	-	-	-	-	-	-	-	0.041	-	-	-	-	-	-	-	-	-
Subtotal: 8) DA67, Chg Prop 155mm (MACS) M232A2			**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***6.032***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**86.373**	**-**	**-**	**99.986**	**-**	**-**	**133.520**	**-**	**-**	**19.301**	**-**	**-**	**-**	**-**	**-**	**19.301**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

Footnotes:

(1) Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys.

(2) DA68 was intended to replace DA51 as the 155mm training round. However, the DA68 program was cancelled by the Army due to technical issues. DA68 funding has been repurposed to procure D528 ammunition.

(3) Pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. DA68 was intended to replace DA51 as the 155mm training round. However, the DA68 program was cancelled by the Army due to technical issues. DA68 funding has been repurposed to procure D528 ammunition.

(4) Pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. DA68 was intended to replace DA51 as the 155mm training round. However, the DA68 program was cancelled by the Army due to technical issues. DA68 funding has been repurposed to procure D528 ammunition.

(5) Pricing and unit costs were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys. DA68 was intended to replace DA51 as the 155mm training round. However, the DA68 program was cancelled by the Army due to technical issues. DA68 funding has been repurposed to procure D528 ammunition.

(6) The unit cost for DA54 and its ancillary components reflect a combination of inflation and current quantities being procured. Pricing is provided the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys.

(7) Unit cost increase per pound of IMX-104 from FY 2019 to FY 2020 is a result of new explosive supply contract with BAE Holston, awarded in Aug 19.

(8) Unit cost increase per pound of IMX-101 from FY 2019 to FY 2020 is a result of new explosive supply contract with BAE Holston, awarded in Aug 19.

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Aggregated Items: Artillery, All Types (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) D528 Projectile, 155mm Smoke White Phosphorus M825												
1.1) D528 Hardware (3)(†)		2020	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2020	Jul 2022	11,346	1,976.76	N	Jan 2020	
1.1) D528 Hardware (3)(†)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Oct 2020	Apr 2023	5,573	2,016.69	N	Jan 2020	
2) D529 155mm HE M795 w/TNT												
2.1) D529 M795 LAP(†)		2018	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2018	May 2020	65,467	148.39	Y		
2.1) D529 M795 LAP(†)	✓	2018	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2018	May 2020	6,202	148.39	Y		
2.1) D529 M795 LAP(†)		2019	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2019	Aug 2021	16,496	150.96	Y		
2.2) D529 M795 Metal Parts(†)		2018	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDDQ	PICATINNY ARSENAL, NJ	Aug 2018	Feb 2020	66,776	380.69	Y		
2.2) D529 M795 Metal Parts(†)	✓	2018	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDDQ	PICATINNY ARSENAL, NJ	Aug 2018	Feb 2020	6,326	380.69	Y		
2.2) D529 M795 Metal Parts(†)		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Aug 2019	Feb 2022	16,496	388.30	Y		
2.3) D529 TNT Supplemental Charge		2018	CHEMRING ORDNANCE, INC. / PERRY,FL	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2018	Jul 2019	66,776	12.36	Y		
2.3) D529 TNT Supplemental Charge	✓	2018	CHEMRING ORDNANCE, INC. / PERRY,FL	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2018	Jul 2019	6,326	12.36	Y		
2.3) D529 TNT Supplemental Charge		2019	CHEMRING ORDNANCE, INC. / PERRY,FL	C / FFP	ROCK ISLAND ARSENAL, IL	Oct 2018	Apr 2020	16,496	12.60	N		
2.4) D529 TNT TYPE I FLAKE (TRINITROTOLUENE)		2018	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2018	Sep 2019	1,767,609	4.77	Y		
2.4) D529 TNT TYPE I FLAKE (TRINITROTOLUENE)	✓	2018	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2018	Sep 2019	167,454	4.77	Y		
2.4) D529 TNT TYPE I FLAKE (TRINITROTOLUENE)		2019	AMERICAN ORDANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Oct 2018	Oct 2019	494,880	4.77	Y		
2.5) D529 Wooden Pallets		2018	KNOX CNTY ASSOC RETARDED CITIZENS / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Oct 2018	Oct 2019	8,511	95.77	Y		
2.5) D529 Wooden Pallets	✓	2018	KNOX CNTY ASSOC RETARDED CITIZENS / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Oct 2018	Oct 2019	806	95.77	Y		
2.5) D529 Wooden Pallets		2019	KNOX CNTY ASSOC RETARDED CITIZENS / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2019	Aug 2020	2,062	97.68	Y		
3) DA51 155mm HE Training Projectile M1122												
3.1) DA51 Load, Assemble & Pack (LAP)(†)		2018	CRANE ARMY AMMUNITION ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2018	Aug 2020	79,637	322.85	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Aggregated Items: Artillery, All Types (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.2) DA51 Wooden Pallet		2018	KNOX CNTY ASSOC RETARDED CITIZENS / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Jun 2018	Jun 2019	10,353	115.85	Y		
3.3) DA51 Supplemental Charge, PBXN9		2018	CHEMRING ORDNANCE, INC. / PERRY,FL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2018	Jan 2019	81,230	18.62	Y		
3.4) DA51 TNT Type I Flake		2018	GOVERNMENT FURNISHED MATERIAL / TBD	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2018	Mar 2018	238,911	4.77	Y		
3.5) DA51 Plug, Lifting, Meltable for IM		2018	POLYMER TECHNOLOGIES, INC / CLIFTON,NJ	C / FFP	PICATINNY ARSENAL, NJ	Oct 2018	Nov 2019	81,230	7.90	Y		
4) DA54 155mm HE M795 W/IMX												
4.1) DA54 Load, Assemble, Pack (LAP)(†)		2019	AMERICAN ORDNANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2019	Aug 2022	43,808	281.75	Y		
4.1) DA54 Load, Assemble, Pack (LAP)(†)	✓	2019	AMERICAN ORDNANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2019	Aug 2022	25,105	281.75	Y		
4.1) DA54 Load, Assemble, Pack (LAP)(†)		2020	AMERICAN ORDNANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2020	May 2023	86,986	235.74	Y		
4.1) DA54 Load, Assemble, Pack (LAP)(†)		2021	AMERICAN ORDNANCE / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2021	May 2024	3,500	293.13	Y		
4.2) DA54 MELTABLE FUZE PLUG		2019	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2020	Jul 2021	44,684	10.20	Y		
4.2) DA54 MELTABLE FUZE PLUG	✓	2019	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2020	Jul 2021	25,607	10.20	Y		
4.2) DA54 MELTABLE FUZE PLUG		2020	TO BE SELECTED / UNKNOWN	C / FFP	PICATINNY ARSENAL, NJ	May 2020	Nov 2021	88,726	10.40	Y		
4.2) DA54 MELTABLE FUZE PLUG		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	4,000	10.61	Y		
4.3) DA54 Explosive Fill IMX 104 (7)		2019	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2019	Feb 2022	43,808	20.23	Y		
4.3) DA54 Explosive Fill IMX 104 (7)	✓	2019	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2019	Feb 2022	25,105	20.23	Y		
4.3) DA54 Explosive Fill IMX 104 (7)		2020	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	70,316	22.78	Y		
4.3) DA54 Explosive Fill IMX 104 (7)		2021	BAE ORDNANCE SYSTEMS / KINDSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2023	3,500	24.39	Y		
4.4) DA54 Supplementary Charge, PBXN9		2019	SPECTRA TECHNOLOGIES / CAMDEN, AR	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jul 2019	Jan 2021	44,684	19.31	Y		
4.4) DA54 Supplementary Charge, PBXN9	✓	2019	SPECTRA TECHNOLOGIES / CAMDEN, AR	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jul 2019	Jan 2021	25,607	19.31	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Aggregated Items: Artillery, All Types (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.4) DA54 Supplementary Charge, PBXN9		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Aug 2021	88,726	19.37	Y		
4.4) DA54 Supplementary Charge, PBXN9		2021	TO BE SELECTED / UNKNOWN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	4,000	22.44	Y		
4.5) DA54 Wooden Pallets		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2019	Sep 2020	5,695	135.59	Y		
4.5) DA54 Wooden Pallets	✓	2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2019	Sep 2020	3,264	135.59	Y		
4.5) DA54 Wooden Pallets		2020	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDDQ	PICATINNY ARSENAL, NJ	Mar 2020	Sep 2021	7,696	122.39	Y		
4.5) DA54 Wooden Pallets		2021	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	500	124.88	Y		
4.6) DA54 Explosive Fill IMX-101 (8)(†)		2019	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2019	Feb 2022	1,445,664	14.78	Y		
4.6) DA54 Explosive Fill IMX-101 (8)(†)	✓	2019	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2019	Feb 2022	828,465	14.78	Y		
4.6) DA54 Explosive Fill IMX-101 (8)(†)		2020	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDDQ	ROCK ISLAND ARSENAL, IL	Feb 2020	Jun 2022	2,627,810	16.49	Y		
4.6) DA54 Explosive Fill IMX-101 (8)(†)		2021	BAE ORDNANCE SYSTEMS / KINGSPORT, TN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Jun 2023	132,000	15.40	Y		
4.7) DA54 M795 IM Metal Part		2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2019	Sep 2020	44,684	379.81	Y		
4.7) DA54 M795 IM Metal Part	✓	2019	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2019	Sep 2020	25,607	379.81	Y		
4.7) DA54 M795 IM Metal Part		2020	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Sep 2021	75,022	437.85	Y		
4.7) DA54 M795 IM Metal Part		2021	MEDICO INDUSTRIES / WILKES-BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	4,000	403.54	Y		
5) DA58 155mm Extended Range, M982 Excalibur 1B												
5.1) DA58 Complete Round	✓	2018	Raytheon Missile Systems / Tucson, AZ	C / FFP	PICATINNY ARSENAL, NJ	Jan 2018	Jan 2019	69	65,678.32	Y		
5.2) DA58 Container Excalibur	✓	2018	Raytheon Missile Systems / Tucson, AZ	C / FFP	PICATINNY ARSENAL, NJ	Jan 2018	Aug 2019	69	2,100.00	Y		
8) DA67, Chg Prop 155mm (MACS) M232A2												
8.1) DA67 Load, Assemble, Pack (LAP)		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2022	18,550	53.25	Y		
8.1) DA67 Load, Assemble, Pack (LAP)	✓	2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2022	9,564	53.25	Y		

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Aggregated Items: Artillery, All Types (1)

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
8.2) DA67, Propellant, M31A2		2020	GENERAL DYNAMICS OTS / CANADA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Nov 2021	89,411	20.32	Y		
8.2) DA67, Propellant, M31A2	✓	2020	GENERAL DYNAMICS OTS / CANADA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Nov 2021	46,098	20.32	Y		
8.3) DA67 Container, M232A1		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	3,895	62.15	Y		
8.3) DA67 Container, M232A1	✓	2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	2,008	62.15	Y		
8.4) DA67 Combustable Cases F/155MM		2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	19,106	44.68	Y		
8.4) DA67 Combustable Cases F/155MM	✓	2020	TO BE SELECTED / UNKNOWN	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	9,851	44.68	Y		
8.5) DA67 Ignition Propellant, MACS		2020	ST MARKS POWDER INC / CRAWFORDVILLE, FL	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	1,206	11.30	Y		
8.5) DA67 Ignition Propellant, MACS	✓	2020	ST MARKS POWDER INC / CRAWFORDVILLE, FL	C / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2021	622	11.30	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1

P-1 Line Item Number / Title: 1650 / Artillery Munitions

Aggregated Items: Artillery, All Types (1)

Items (Units in Millions, * = < 500)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) D528 Projectile, 155mm Smoke White Phosphorus M825																															
1.1) D528 Hardware (3)																															
	22	2020	NAVY	.011	.000	.011																									.011
	22	2021	NAVY	.006	.000	.006																									.006
2) D529 155mm HE M795 w/TNT																															
2.1) D529 M795 LAP																															
	23	2018	NAVY	.065	.000	.065								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.065
✓	23	2018	NAVY	.006	.000	.006								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.006
	23	2019	NAVY	.016	.000	.016																							A -	-	.016
2.2) D529 M795 Metal Parts																															
	24	2018	NAVY	.067	.000	.067											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.067
✓	24	2018	NAVY	.006	.000	.006											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	.006
	24	2019	NAVY	.016	.000	.016																							A -	-	.016
3) DA51 155mm HE Training Projectile M1122																															
3.1) DA51 Load, Assemble & Pack (LAP)																															
	25	2018	NAVY	.080	.000	.080				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.080
4) DA54 155mm HE M795 W/IMX																															
4.1) DA54 Load, Assemble, Pack (LAP)																															
	26	2019	NAVY	.044	.000	.044																							A -	-	.044
✓	26	2019	NAVY	.025	.000	.025																							A -	-	.025
	26	2020	NAVY	.087	.000	.087																									.087
	26	2021	NAVY	.004	.000	.004																									.004
4.6) DA54 Explosive Fill IMX-101 (8)																															
	27	2019	NAVY	1.446	.000	1.446																							A -	-	1.446
✓	27	2019	NAVY	.828	.000	.828																							A -	-	.828
	27	2020	NAVY	2.628	.000	2.628																									2.628
	27	2021	NAVY	.132	.000	.132																									.132
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1

P-1 Line Item Number / Title: 1650 / Artillery Munitions

Aggregated Items: Artillery, All Types (1)

Items (Units in Millions, * = < 500)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) D528 Projectile, 155mm Smoke White Phosphorus M825																															
1.1) D528 Hardware (3)																															
	22	2020	NAVY	.011	.000	.011				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.011
	22	2021	NAVY	.006	.000	.006													A -	-	-	-	-	-	-	-	-	-	-	-	.006
2) D529 155mm HE M795 w/TNT																															
2.1) D529 M795 LAP																															
	23	2018	NAVY	.065	.000	.065	-	-	-	-	-	-	-	.014	.016	.016	.012	.008													.000
✓	23	2018	NAVY	.006	.000	.006	-	-	-	-	-	-	-	.006																	.000
	23	2019	NAVY	.016	.000	.016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.004	.004	.008
2.2) D529 M795 Metal Parts																															
	24	2018	NAVY	.067	.000	.067	-	-	-	-	.018	.018	.014	.017																	.000
✓	24	2018	NAVY	.006	.000	.006	-	-	-	-	.003	.002	.002																		.000
	24	2019	NAVY	.016	.000	.016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.016
3) DA51 155mm HE Training Projectile M1122																															
3.1) DA51 Load, Assemble & Pack (LAP)																															
	25	2018	NAVY	.080	.000	.080	-	-	-	-	-	-	-	-	-	-	.013	.013	.013	.013	.013	.010	.005								.000
4) DA54 155mm HE M795 W/IMX																															
4.1) DA54 Load, Assemble, Pack (LAP)																															
	26	2019	NAVY	.044	.000	.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.044
✓	26	2019	NAVY	.025	.000	.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.025
	26	2020	NAVY	.087	.000	.087								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.087
	26	2021	NAVY	.004	.000	.004																				A -	-	-	-	-	.004
4.6) DA54 Explosive Fill IMX-101 (8)																															
	27	2019	NAVY	1.446	.000	1.446	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.446
✓	27	2019	NAVY	.828	.000	.828	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.828
	27	2020	NAVY	2.628	.000	2.628					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.628
	27	2021	NAVY	.132	.000	.132																	A -	-	-	-	-	-	-	-	.132
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1

P-1 Line Item Number / Title: 1650 / Artillery Munitions

Aggregated Items: Artillery, All Types (1)

Items (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) D528 Projectile, 155mm Smoke White Phosphorus M825																															
1.1) D528 Hardware (3)																															
	22	2020	NAVY	.011	.000	.011	-	-	-	-	-	-	-	-	-	.005	.007														.000
	22	2021	NAVY	.006	.000	.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.006						.000
2) D529 155mm HE M795 w/TNT																															
2.1) D529 M795 LAP																															
	23	2018	NAVY	.065	.065	.000																									.000
✓	23	2018	NAVY	.006	.006	.000																									.000
	23	2019	NAVY	.016	.008	.008	.004	.004																							.000
2.2) D529 M795 Metal Parts																															
	24	2018	NAVY	.067	.067	.000																									.000
✓	24	2018	NAVY	.006	.006	.000																									.000
	24	2019	NAVY	.016	.000	.016	-	-	-	-	.004	.004	.004	.004																	.000
3) DA51 155mm HE Training Projectile M1122																															
3.1) DA51 Load, Assemble & Pack (LAP)																															
	25	2018	NAVY	.080	.080	.000																									.000
4) DA54 155mm HE M795 W/IMX																															
4.1) DA54 Load, Assemble, Pack (LAP)																															
	26	2019	NAVY	.044	.000	.044	-	-	-	-	-	-	-	-	-	-	.004	.004	.004	.004	.004	.004	.006	.008	.006						.000
✓	26	2019	NAVY	.025	.000	.025	-	-	-	-	-	-	-	-	-	-	.004	.004	.004	.004	.004	.004	.001								.000
	26	2020	NAVY	.087	.000	.087	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.002	.004	.004	.007	.006	.065
	26	2021	NAVY	.004	.000	.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.004
4.6) DA54 Explosive Fill IMX-101 (8)																															
	27	2019	NAVY	1.446	.000	1.446	-	-	-	-	.250	.250	.250	.250	.250	.196															.000
✓	27	2019	NAVY	.828	.000	.828	-	-	-	-	.250	.250	.250	.078																	.000
	27	2020	NAVY	2.628	.000	2.628	-	-	-	-	-	-	-	-	.250	.250	.250	.250	.250	.250	.250	.250	.250	.250	.128						.000
	27	2021	NAVY	.132	.000	.132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.132				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	**Aggregated Items:** Artillery, All Types (1)

Items (Units in Millions, * = < 500)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
COO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) D528 Projectile, 155mm Smoke White Phosphorus M825																															
1.1) D528 Hardware (3)																															
	22	2020	NAVY	.011	.011	.000																									.000
	22	2021	NAVY	.006	.006	.000																									.000
2) D529 155mm HE M795 w/TNT																															
2.1) D529 M795 LAP																															
	23	2018	NAVY	.065	.065	.000																									.000
✓	23	2018	NAVY	.006	.006	.000																									.000
	23	2019	NAVY	.016	.016	.000																									.000
2.2) D529 M795 Metal Parts																															
	24	2018	NAVY	.067	.067	.000																									.000
✓	24	2018	NAVY	.006	.006	.000																									.000
	24	2019	NAVY	.016	.016	.000																									.000
3) DA51 155mm HE Training Projectile M1122																															
3.1) DA51 Load, Assemble & Pack (LAP)																															
	25	2018	NAVY	.080	.080	.000																									.000
4) DA54 155mm HE M795 W/IMX																															
4.1) DA54 Load, Assemble, Pack (LAP)																															
	26	2019	NAVY	.044	.044	.000																									.000
✓	26	2019	NAVY	.025	.025	.000																									.000
	26	2020	NAVY	.087	.022	.065	.013	.013	.013	.013	.007	.006																			.000
	26	2021	NAVY	.004	.000	.004	-	-	-	-	-	-	-	.004																	.000
4.6) DA54 Explosive Fill IMX-101 (8)																															
	27	2019	NAVY	1.446	1.446	.000																									.000
✓	27	2019	NAVY	.828	.828	.000																									.000
	27	2020	NAVY	2.628	2.628	.000																									.000
	27	2021	NAVY	.132	.132	.000																									.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	**Aggregated Items:** Artillery, All Types (1)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	108,000	144,000	180,000	6	4	30	34	6	4	30	34
2	AMERICAN ORDANCE - MIDDLETOWN, IA	97,200	156,000	240,000	11	11	24	35	6	6	24	30
3	MEDICO INDUSTRIES - WILKES-BARRE, PA	10,000	35,000	40,000	11	11	12	23	6	6	12	18
4	CRANE ARMY AMMUNITION ACTIVITY - CRANE, IN	5,000	13,000	30,000	6	6	24	30	6	6	24	30
5	AMERICAN ORDNANCE - MIDDLETOWN, IA	97,200	156,000	240,000	8	8	36	44	8	8	36	44
6	BAE ORDNANCE SYSTEMS - KINGSPORT, TN			TBD	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Item Number / Title [DODIC]: 1 / Fuze, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	19.368	13.596	74.081	40.238	0.000	40.238
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	19.368	13.596	74.081	40.238	0.000	40.238
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**19.368**	**13.596**	**74.081**	**40.238**	**0.000**	**40.238**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Hardware - N340 Fuze Point Detonating M739A1 Cost																		
Recurring Cost																		
1.1.1) N340 Complete Fuze(†)	71.90	4,576	0.329	-	-	0.000	76.86	201,795	15.510	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) N340 Productiong Engineering	-	-	0.162	-	-	0.000	-	-	0.350	-	-	0.000	-	-	0.000	-	-	0.000
1.1.3) N340 Acceptance Testing	-	-	0.011	-	-	0.000	-	-	0.800	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.502*	-	-	*0.000*	-	-	*16.660*	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*
Subtotal: Hardware - N340 Fuze Point Detonating M739A1 Cost	**-**	**-**	***0.502***	**-**	**-**	***0.000***	**-**	**-**	***16.660***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***
Hardware - NA29 Precisiong Guided Kit (NPGK) Cost																		
Recurring Cost																		
2.1.1) NA29 Complete Fuze(†)	6,822.17	2,418	16.496	6,934.14	1,593	11.046	7,286.95	6,054	44.116	7,286.95	5,232	38.125	-	-	0.000	7,286.95	5,232	38.125
2.1.2) NA29 Production Engineering	-	-	1.010	-	-	1.202	-	-	1.201	-	-	1.248	-	-	0.000	-	-	1.248
2.1.3) NA29 Acceptance Testing	-	-	0.000	-	-	0.250	-	-	0.998	-	-	0.500	-	-	0.000	-	-	0.500
2.1.4) NA29 PGK NET SUPPORT	-	-	0.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	*18.006*	-	-	*12.498*	-	-	*46.315*	-	-	*39.873*	-	-	*0.000*	-	-	*39.873*

Exhibit P-5, Cost Analysis: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Item Number / Title [DODIC]: 1 / Fuze, All Types
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Non Recurring Cost																		
2.2.1) NA29 DOTC GPS Obsolesc.	-	-	0.186	-	-	0.906	-	-	1.106	-	-	0.000	-	-	0.000	-	-	0.000
2.2.2) NA29 Melody II Qual	-	-	0.235	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.2.3) NA29 CINCO Buy	-	-	0.101	-	-	0.060	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
2.2.4) NA29 MELODY ASIC II Chip	-	-	0.338	-	-	0.000	-	-	10.000	-	-	0.000	-	-	0.000	-	-	0.000
2.2.6) M762A1 S&A/ PBXW-14	-	-	0.000	-	-	0.132	-	-	0.000	-	-	0.365	-	-	0.000	-	-	0.365
Subtotal: Non Recurring Cost	-	-	*0.860*	-	-	*1.098*	-	-	*11.106*	-	-	*0.365*	-	-	*0.000*	-	-	*0.365*
Subtotal: Hardware - NA29 Precisiong Guided Kit (NPGK) Cost	**-**	**-**	***18.866***	**-**	**-**	***13.596***	**-**	**-**	***57.421***	**-**	**-**	***40.238***	**-**	**-**	***0.000***	**-**	**-**	***40.238***
Gross/Weapon System Cost	**-**	**-**	**19.368**	**-**	**-**	**13.596**	**-**	**-**	**74.081**	**-**	**-**	**40.238**	**-**	**-**	**0.000**	**-**	**-**	**40.238**

Remarks:
Pricing is provided by the Army Single Manager for Conventional Ammunition (SMCA) and incorporates other service buys.

[Hardware] NA29: FY21 pricing and unit costs for NA29 Complete Fuze were provided by U. S. Army Single Manager Conventional Ammunition, (SMCA) and incorporates other service buys.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	P-1 Line Item Number / Title: 1650 / Artillery Munitions	Item Number / Title [DODIC]: 1 / Fuze, All Types

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) N340 Complete Fuze(†)		2018	ACTION MANUFACTURING INC / Bristol, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Nov 2018	Nov 2021	4,576	71.93	Y		
1.1.1) N340 Complete Fuze(†)		2020	TBD / TBD	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2023	201,795	76.86	Y		
2.1.1) NA29 Complete Fuze(†)		2018	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2018	Mar 2020	2,304	6,821.92	Y		
2.1.1) NA29 Complete Fuze(†)	✓	2018	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2018	Mar 2020	114	6,821.92	Y		
2.1.1) NA29 Complete Fuze(†)		2019	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2019	Mar 2021	1,593	6,934.14	Y		
2.1.1) NA29 Complete Fuze(†)		2020	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2022	2,072	7,286.95	Y		
2.1.1) NA29 Complete Fuze(†)	✓	2020	NORTHROP GRUMMAN INNOVATION SYSTEMS / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2020	Mar 2022	3,982	7,286.95	Y		
2.1.1) NA29 Complete Fuze(†)		2021	TO BE SELECTED / UNKNOWN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2023	5,232	7,286.95	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1

P-1 Line Item Number / Title: 1650 / Artillery Munitions

Item Number / Title [DODIC]: 1 / Fuze, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018												Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) N340 Complete Fuze																															
	1	2018	NAVY	4.576	.000	4.576														A -	-	-	-	-	-	-	-	-	-	-	4.576
	2	2020	NAVY	201.795	.000	201.795																									201.795
2.1.1) NA29 Complete Fuze																															
	3	2018	NAVY	2.304	.000	2.304						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.304
✓	3	2018	NAVY	.114	.000	.114						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.114
	3	2019	NAVY	1.593	.000	1.593																		A -	-	-	-	-	-	-	1.593
	3	2020	NAVY	2.072	.000	2.072																									2.072
✓	3	2020	NAVY	3.982	.000	3.982																									3.982
	4	2021	NAVY	5.232	.000	5.232																									5.232
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1650 / Artillery Munitions | **Item Number / Title [DODIC]:** 1 / Fuze, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) N340 Complete Fuze																															
	1	2018	NAVY	4.576	.000	4.576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.576
	2	2020	NAVY	201.795	.000	201.795						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201.795
2.1.1) NA29 Complete Fuze																															
	3	2018	NAVY	2.304	.000	2.304	-	-	-	-	-	.152	.152	.152	.190	.190	.190	.190	.210	.210	.210	.225	.233								.000
✓	3	2018	NAVY	.114	.000	.114	-	-	-	-	-	.038	.038	.038																	.000
	3	2019	NAVY	1.593	.000	1.593	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.126	.126	.126	.126	.126	.126	.139	.698
	3	2020	NAVY	2.072	.000	2.072						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.072
✓	3	2020	NAVY	3.982	.000	3.982						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.982
	4	2021	NAVY	5.232	.000	5.232																		A -	-	-	-	-	-	-	5.232
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1650 / Artillery Munitions | **Item Number / Title [DODIC]:** 1 / Fuze, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) N340 Complete Fuze																															
	1	2018	NAVY	4.576	.000	4.576	-	4.576																							.000
	2	2020	NAVY	201.795	.000	201.795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.000	17.000	17.000	17.000	17.000	17.000	17.000	82.795
2.1.1) NA29 Complete Fuze																															
	3	2018	NAVY	2.304	2.304	.000																									.000
✓	3	2018	NAVY	.114	.114	.000																									.000
	3	2019	NAVY	1.593	.895	.698	.139	.139	.139	.139	.142																				.000
	3	2020	NAVY	2.072	.000	2.072	-	-	-	-	-	.800	.800	.472																	.000
✓	3	2020	NAVY	3.982	.000	3.982	-	-	-	-	-	.800	.800	.800	.800	.782															.000
	4	2021	NAVY	5.232	.000	5.232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.425	.425	.425	.425	.425	.425	.425	2.257
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy | **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1 | **P-1 Line Item Number / Title:** 1650 / Artillery Munitions | **Item Number / Title [DODIC]:** 1 / Fuze, All Types

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.1.1) N340 Complete Fuze																															
	1	2018	NAVY	4.576	4.576	.000																									.000
	2	2020	NAVY	201.795	119.000	82.795	17.000	17.000	17.000	18.000	13.795																				.000
2.1.1) NA29 Complete Fuze																															
	3	2018	NAVY	2.304	2.304	.000																									.000
✓	3	2018	NAVY	.114	.114	.000																									.000
	3	2019	NAVY	1.593	1.593	.000																									.000
	3	2020	NAVY	2.072	2.072	.000																									.000
✓	3	2020	NAVY	3.982	3.982	.000																									.000
	4	2021	NAVY	5.232	2.975	2.257	.425	.425	.425	.425	.557																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1650 / Artillery Munitions	**Item Number / Title [DODIC]:** 1 / Fuze, All Types

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2021	1-8-5 For 2021	MAX For 2021	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ACTION MANUFACTURING INC - Bristol, PA	20,000	35,000	500,000	10	10	36	46	10	10	36	46
2	TBD - TBD			TBD	0	0	0	0	0	0	0	0
3	NORTHROP GRUMMAN INNOVATION SYSTEMS - PLYMOUTH, MN	3,996	13,200	26,400	13	9	27	36	3	6	24	30
4	TO BE SELECTED - UNKNOWN			TBD	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1660 / Items less than $5 million

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	69.739	6.239	4.521	4.142	0.000	4.142	5.273	5.281	5.145	5.248	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.739	6.239	4.521	4.142	0.000	4.142	5.273	5.281	5.145	5.248	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.739**	**6.239**	**4.521**	**4.142**	**0.000**	**4.142**	**5.273**	**5.281**	**5.145**	**5.248**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Items Less Than $5 Million (LT5M) budget supports Marine Corps Units that have niche ammunition requirements. The LT5M line item includes the Marine Corps (MC) Competition Shooting Team with ammunition loading equipment and unique precision ammunition components through small purchase orders and the small arms small purchase credit card. This line also includes First Destination Transportation Charge (FDTC) funds that are utilized for the distribution of Marine Corps' ammunition end items from manufacturing plants assembly points. The Marine Security Guard Battalion (MSGB) funds the Marine Security Guard Battalion ammunition requirements which are procured through the U.S. State Department. Counter-Drug Interdiction funds are provided by Office of the Secretary of Defense (OSD) to the Marine Corps in the year of execution to support drug interdiction requirements. This line will also be used for the procurement of the Ammunition Inventory Management System consisting of commercially available software solution(s) to fully track, account, audit and manage the supply and distribution of Class V munitions worldwide.

FY 2021 funding totals include $4.142M for Base and $0.0M for Overseas Contingency Operations (OCO).

The FY 2021 funding request was reduced by $0.736M to account for the availability of prior year execution balances.

Exhibit P-40, Budget Line Item Justification: PB 2021 Navy	**Date:** February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N: Procurement of Ammo, Navy & MC / BA 02: Proc Ammo, MC / BSA 1: Marine Corps Ammunition	**P-1 Line Item Number / Title:** 1660 / Items less than $5 million

ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Items less than $5 million				- / 69.739	- / 6.239	- / 4.521	- / 4.142	- / -	- / 4.142
P-40	**Total Gross/Weapon System Cost**				**- / 69.739**	**- / 6.239**	**- / 4.521**	**- / 4.142**	**- / 0.000**	**- / 4.142**

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Baseline Appropriation Request: $4.142M

FY 2021 baseline funding will procure match ammunition and components for the Marine Corps Rifle Team. Funds will continue to provide First Destination Transportation (FDT) of items delivering in FY 2021 and Marine Security Guard Battalion requirements procured through the U.S. State Department.

The funding decrease of $0.379M from FY 2020 to FY 2021 reflects an adjustment to the Marine Security Guard Battalion Ammunition based on current requirements and a decrease to the First Destination Transportation budget to reflect historical expenditures.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Navy		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 1508N / 02 / 1	**P-1 Line Item Number / Title:** 1660 / Items less than $5 million	**Aggregated Items Title:** Items less than $5 million

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Items Less than $5M																				
1.1) A001, RIFLE TEAM AMMUNITION	A		-	-	1.081	-	-	0.241	-	-	0.255	-	-	0.257	-	-	-	-	-	0.257
1.2) DRUG INT, DRUG INTERDICTION	A		-	-	7.986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) FDTC, FIRST DESTINATION TRANSPORTATION CHARGE			-	-	49.993	-	-	4.833	-	-	3.380	-	-	3.234	-	-	-	-	-	3.234
1.4) MSGB, MARINE SECURITY GUARD BATTALION AMMO	A		-	-	6.479	-	-	1.165	-	-	0.886	-	-	0.651	-	-	-	-	-	0.651
1.5) NON-DISTR, Special Purpose MAGTF-Crisis Response	A		-	-	4.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Items Less than $5M			**-**	**-**	***69.739***	**-**	**-**	***6.239***	**-**	**-**	***4.521***	**-**	**-**	***4.142***	**-**	**-**	**-**	**-**	**-**	***4.142***
Total			**-**	**-**	**69.739**	**-**	**-**	**6.239**	**-**	**-**	**4.521**	**-**	**-**	**4.142**	**-**	**-**	**-**	**-**	**-**	**4.142**

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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