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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

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)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 503

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	7,758	7,594	-	3,388	3,388	3,409	3,108	3,246	3,247	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	164.284	180.919	0.000	82.676	82.676	84.529	79.792	84.877	86.571	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	164.284	180.919	0.000	82.676	82.676	84.529	79.792	84.877	86.571	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	164.284	180.919	0.000	82.676	82.676	84.529	79.792	84.877	86.571	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2020 funding totals include \$0.0M for Base and \$82.676M for Overseas Contingency Operations (OCO); of which \$70.413M and 2,844 quantity is realigned as part of the OCO for Base Requirements. FY 2020 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.

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.

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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)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 503

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / JT Direct Attack Munition (JDAM) Tail Kit	P-5a, P-21			- / 0.000	7,758 / 164.284	7,594 / 180.919	- / 0.000	3,388 / 82.676	3,388 / 82.676
P-40	Total Gross/Weapon System Cost				- / 0.000	7,758 / 164.284	7,594 / 180.919	- / 0.000	3,388 / 82.676	3,388 / 82.676

*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 2020 OCO for baseline funding is required to meet Naval Munitions Requirements Process (NMRP) inventory objectives.

OCO:
 FY 2020 Direct War OCO funding is required to replenish JDAM expended in direct support of Operation Inherent Resolve (OIR). Funding may be used to address production related issues.

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Exhibit P-5, Cost Analysis: PB 2020 Navy		Date: March 2019
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:
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)	-	7,758	7,594	-	3,388	3,388
Gross/Weapon System Cost (\$ in Millions)	0.000	164.284	180.919	0.000	82.676	82.676
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	164.284	180.919	0.000	82.676	82.676
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	164.284	180.919	0.000	82.676	82.676

(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)	-	21,176.08	23,823.94	-	24,402.60	24,402.60

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)	-	-	-	20,864.00	7,758	161.863	23,460.00	7,594	178.155	-	-	0.000	23,929.00	3,346	80.066	23,929.00	3,346	80.066
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	161.863	-	-	178.155	-	-	0.000	-	-	80.066	-	-	80.066
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	161.863	-	-	178.155	-	-	0.000	-	-	80.066	-	-	80.066
Support Cost																		
2.1) JD800-Support - Integrated Logistics	-	-	-	-	-	0.250	-	-	0.252	-	-	0.000	-	-	0.257	-	-	0.257
2.2) JD830-Support - Production Engineering (2)	-	-	-	-	-	0.950	-	-	1.224	-	-	0.000	-	-	1.053	-	-	1.053
2.3) JD850-Support - Miscellaneous Support (3)	-	-	-	-	-	1.221	-	-	1.288	-	-	0.000	-	-	1.300	-	-	1.300
<i>Subtotal: Support Cost</i>	-	-	-	-	-	2.421	-	-	2.764	-	-	0.000	-	-	2.610	-	-	2.610
Gross/Weapon System Cost	-	-	0.000	21,176.08	7,758	164.284	23,823.94	7,594	180.919	-	-	0.000	24,402.60	3,388	82.676	24,402.60	3,388	82.676

(†) indicates the presence of a P-5a

Footnotes:

(1) JD500 - The OCO funding is required to support the reset of bomb components expended in combat operations.

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Exhibit P-5, Cost Analysis: PB 2020 Navy		Date: March 2019
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:	
<p>⁽²⁾ JD830 Support - Production Engineering was reduced due to refinement of the scope of tasking in support of JDAM production.</p> <p>⁽³⁾ JD850 Miscellaneous Support increases starting in FY 2020 are due to 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.</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2020 Navy							Date: March 2019					
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	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	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	2,664	20,864.00	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	20,864.00	Y		Oct 2013
1.1.1) JD500-JDAM Tail Kit ^(†)		2019	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2019	Mar 2020	3,688	23,460.00	Y		Jul 2017
1.1.1) JD500-JDAM Tail Kit ^(†)	✓	2019	The Boeing Company / St. Charles, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2019	Mar 2020	3,906	23,460.00	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	3,346	23,929.00	Y		Jul 2017

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2020 Navy															Date: March 2019														
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 <i>(Units in Each)</i>					Fiscal Year 2020												Fiscal Year 2021												BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P
1.1.1) JD500-JDAM Tail Kit ⁽¹⁾																															
	1	2018	NAVY	2,664	1,110	1,554	222	222	222	222	222	222																0			
✓	1	2018	NAVY	5,094	2,125	2,969	425	424	424	424	424	424																0			
	1	2019	NAVY	3,688	0	3,688	-	-	-	-	-	307	307	307	307	307	307	307	307	307	307	311						0			
✓	1	2019	NAVY	3,906	0	3,906	-	-	-	-	-	364	322	322	322	322	322	322	322	322	322							0			
✓	1	2020	NAVY	3,346	0	3,346					A	-	-	-	-	-	-	-	-	-	-	-	488	488	237	237	237	237	1,185		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2020 Navy																		Date: March 2019													
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 <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
1.1.1) JD500-JDAM Tail Kit ⁽¹⁾																																			
	1	2018	NAVY	2,664	2,664	0																							0						
✓	1	2018	NAVY	5,094	5,094	0																							0						
	1	2019	NAVY	3,688	3,688	0																							0						
✓	1	2019	NAVY	3,906	3,906	0																							0						
✓	1	2020	NAVY	3,346	2,161	1,185	237	237	237	237	237																		0						
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2020 Navy								Date: March 2019				
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)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	Initial				Reorder			
					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	7,501	18,900	42,000	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).