Exhibit MYP-1, Multiyear Procurement Criteria Appropriation / Budget Activity: P-1 Item Nomenclature:

Aegis BMD Standard Missile-3 (SM-3) Block IB

1. Multiyear Procurement Description:

This proposed Multiyear Procurement (MYP) covers the purchase of 204 Standard Missile -3 (SM-3) Block IB AEGIS ballistic missile interceptors in FY2019 through FY2023, with advance procurement for economic order quantities beginning in FY2019.

This multiyear contract uses Economic Order Quantity Advance Procurement funding to provide the U.S. Government maximum savings in price and delivery schedule. Advance Procurement funding in FY2019 will enable equipment suppliers and subcontractors with sufficient lead time to support the planned delivery schedule within the context of the multiyear funding, prices, and cancellation ceilings.

2. Benefit to the Government:

a. Substantial Savings:

This multiyear contract will provide the U.S. Government maximum savings in both price and delivery schedule. Implementation of this proposed MYP will yield substantial savings through the term of the contract. Specifically, savings for the FY2019 through FY2023 attributable to this MYP strategy is estimated at \$306.1million (TY\$), for a total of 13.49%

b. Stability of Requirement:

The SM-3 Block IB incorporates a two-color, all reflective infrared seeker, enabling longer range acquisition and increased threat discrimination over the previous SM-3 Block IA. A Throttleable Divert Attitude Control System (TDACS) provides a more flexible and lower cost alternative to the Solid Divert Attitude Control System in the Block IA. Initial Production of the SM-3 Block IB began in FY2012 (14) with larger rate production quantities in FY2013 (33), FY2014 (52), and FY2015 (52) and FY2016 (46) and FY 2017 (35). The planned sustained production rate objective is 48 missiles per year and the maximum production rate is 52 missiles per year.

c. Stability of Funding:

Sufficient funding exists within the current budget controls to execute this procurement. The Missile Defense Agency has demonstrated its commitment to a stable funding stream for the SM-3 Block IB MYP through every step of this year's budget process by fully funding the requirement. This commitment was reaffirmed by top level DoD leadership through its support in the final budget submission. In addition, the Secretary of Defense supports the quantities and funding profile provided in this request. The budget submission includes sufficient funding to execute the program.

d. Stable Configuration:

SM-3 Block IB was found to be Operationally Suitable and Effective by Commander Operational Test and Evaluation Force October 2014 following the completion of its assessment of Developmental Test/Operational Tests. The missile has been in initial production since the FY2012 contract. The 120th SM-3 Block IB will be produced in late calendar year 2017. SM-3 Block IB configuration is governed by a rigorous control process at both the Government and contractor facilities. All SM-3 Block IB procured under the multi-year contract would be of the same design. Concurrent procurement of material will ensure that sufficient parts exist to maintain the stable

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria

Date:

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Aegis BMD Standard Missile-3 (SM-3) Block IB

configuration.

e. Realistic Cost Estimate:

Cost estimates reflect experience with Standard Missile 3 (SM-3) manufacturing since 2005, including 139 procured SM-3 Block IA and 172 Block IB through June 2015. The cost estimates for the multi-year are based on 10 years of SM-3 procurement history and established learning curves and quantity curves.

The savings shown in these exhibits are based on historical experience, contract awards, and surveys of primary equipment vendors. There is a high degree of confidence the SM-3 Block IB program can achieve the stated savings and procure the MYP missiles within the funding identified. This MYP will be a fixed price incentive firm contract.

f. National Security:

The QDR and DPG emphasize the criticality of the planned antiballistic missile infrastructure, including investments in defensive interceptors such as the SM-3 Block IB. The SM-3 Block IB is deployed on DDG and CG class ships and planned for the Aegis Ashore platform defending U.S. interests at home and abroad. The current SM-3 Block IB inventory is significantly lower than force structure requirements, making the procurement of additional SM-3 Block IBs critical for the defense of the homeland and protection of U.S. forces and interests abroad.

3. Source of Savings:

The stability and upfront material purchase of a multiyear contract for the SM-3 IB Missile will enable Raytheon Missile Systems and its suppliers to implement a more efficient planning and manufacturing cycle predicated on a production rate that supports the delivery cycle.

	\$ in Millions
Inflation	\$6.923
Vendor Procurement	\$254.634
Manufacturing	\$44.575
Design/Engineering	\$0.000
Tool Design	\$0.000
Support Equipment	\$0.000
Other	\$0.000
Workload Savings	\$0.000
Total	\$306.132

4. Advantages of the MYP:

The proposed multi-year contract provides significant savings over a year-by-year contracting approach. It provides enhanced stability to the configuration of the missile by protecting against the potential loss of vendors at low procurement quantities. It also provides increased stability to the engineering base for the program by providing a predictable

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria

Date:

January 2018

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Aegis BMD Standard Missile-3 (SM-3) Block IB

workload over the 5 year period. Each of these is a significant benefit over the year-by-year contracting approach. This MYP strategy has been structured to achieve significant savings and will eliminate the need to develop an annual plan on a yearly basis; one year of planning will replace four independent years of planning. Savings resulting from economic order quantities and independent planning result in benefit to industry and government.

5. Impact on Defense Industrial Base:

The stability afforded by the use of a multiyear procurement will allow the prime contractor to enter into long term agreements with suppliers, at every tier, which provide substantial benefit. Such long term agreements incentivize both the prime and the subcontractors to invest in process improvements that yield long term benefits in terms of product quality and cost. The contractor and subcontractor will be at a reduced risk when implementing production process improvements, facility improvements, tooling design improvements, and fabrication process improvements. The ability for the government and industry to enter into a long-term agreement will allow industry the opportunity to place capital investments upfront, which reduces the overall cost and improves the quality of the SM-3 Block IB.

6. Multiyear Procurement Summary:

	<u>Annual</u>	<u>MultiYear</u>
	<u>Contracts</u>	<u>Contract</u>
Quantity	204	204
Total Contract Price	\$2,268.943	\$1,962.811
Cancellation Ceiling (highest point)		
Funded		\$ 0.000
Unfunded		\$ 0.000
\$ Cost Avoidance Over Annual		\$306.132
% Cost Avoidance Over Annual		13.5%

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-2 Total Program Funding Plan (MDA)						Date: January 2018								
PROCUREMENT					P-1 Line Item Nomenclature - Aegis BMD Standard Missile-3 (SM-3) Block IB (MDA)									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL			
Procurement Quantity			37	38	41	41	47				204			
Annual Procurement														
Gross Cost			459.0	472.4	498.4	498.6	579.9				2508.3			
Less PY Adv Procurement														
Net Procurement (= P-1)			459.0	472.4	498.4	498.6	579.9				2508.3			
Plus CY Adv Procurement														
Weapon System Cost			459.0	472.4	498.4	498.6	579.9				2508.3			
Multiyear Procurement														
Gross Cost (P-1)			411.7	408.7	430.2	434.6	516.9				2202.1			
Less PY Adv Procurement				(32.9)	(68.7)	(87.0)	(85.9)				(274.5			
Net Procurement (= P-1)			411.7	375.8	361.5	347.6	431.0				1927.6			
Advance Procurement	45 14-355													
For FY20			32.9								32.9			
For FY21			31.6	37.1							68.7			
For FY22			27.7	33.5							87.1			
For FY23			23.1	26.4	19.0	17.5					86.0			
Plus CY Adv Procurement			115.2	97.0	44.9	17.5					274.6			
Weapon System Cost			526.9	472.8	406.4	365.1	431.0				2202.2			
MultiyearSavings (\$)			(67.9)	(0.4)	92.0	133.5	148.9				306.1			
Multiyear Savings (%) (total only)											12.29			
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual			134.0	358.0	448.9	545.6	465.3	211.9	135.0	89.3	2388.0			
Multiyear			117.6	314.3	394.1	479.0	408.5	186.0	118.5	78.4	2096.4			
Savings			16.4	43.7	54.8	66.6	56.8	25.9	16.5	10.9	291.6			

P-1 Shopping List - Item No 17-MD09

* Numbers may not add due to rounding.

Exhibit MYP-2, Total Program Funding Plan

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Exhibit MYP-3 Total Contract Funding Plan (MDA)						Date: January 2018								
PROCUREMENT						P-1 Line Item Nomenclature - Aegis BMD Standard Missile-3 (SM-3) Block IB (MDA)								
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL			
Procurement Quantity			37	38	41	41	47				204			
Annual Procurement														
Gross Cost			407.3	420.9	455.0	459.9	525.8				2268.9			
Less PY Adv Procurement				J										
Net Procurement (= P-1)			407.3	420.9	455.0	459.9	525.8				2268.9			
Plus CY Adv Procurement														
Contract Price			407.3	420.9	455.0	459.9	525.8				2268.9			
Multiyear Procurement														
Gross Cost (P-1)			360.0	357.2	386.8	396.0	462.8				1962.8			
Less PY Adv Procurement				(32.9)	(68.7)	(87.1)	(86.0)				(274.6			
Net Procurement (= P-1)			360.0	324.4	318.1	308.9	376.9				1688.2			
Advance Procurement														
For FY20			32.9								32.9			
For FY21			31.6	37.1							68.7			
For FY22			27.7	33.5	25.9						87.1			
For FY23			23.1	26.4	19.0	17.5					86.0			
Plus CY Adv Procurement			115.2	97.0	44.9	17.5					274.6			
Contract Price			475.2	421.4	363.0	326.4	376.9				1962.8			
MultiyearSavings (\$)			(67.9)	(0.4)	92.0	133.5	148.9				306.1			
Multiyear Savings (%) (total only)											13.59			
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual			121.2	323.8		493.5	420.9	191.7	122.1	80.8	2160.1			
Multiyear			140.7	337.2	418.7	420.8	250.5	165.9	90.3	68.7	1892.8			
Savings			(19.5)	(13.4)	(12.6)	72.7	170.4	25.8	31.8	12.1	267.3			

P-1 Shopping List - Item No 17-MD09

Exhibit MYP-3, Total Contract Funding Plan

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^{*} Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (MDA)						Date: January 2018								
PROCUREMENT					P-1 Line Item Nomenclature - Aegis BMD Standard Missile-3 (SM-3) Block IB (MDA)									
	2017	2018	2019	2020	2021 2022	2022 2023	2024	2025	2026	TOTAL				
Annual Proposal														
Then Year Cost			121.2	323.8	406.1	493.5	420.9	191.7	122.1	80.8	2160.1			
Constant Year Cost			118.9	311.8	383.8	457.7	383.1	171.2	107.0	69.5	2003.2			
Present Value			115.7	299.9	365.0	430.5	356.3	157.5	97.4	62.5	1884.9			
Multiyear Proposal														
Then Year Cost			140.7	337.2	418.7	420.8	250.5	165.9	90.3	68.7	1892.8			
Constant Year Cost			138.1	324.7	395.7	390.3	228.0	148.2	79.2	59.1	1763.2			
Present Value			134.3	312.3	376.4	367.1	212.1	136.3	72.0	53.2	1663.6			
Difference														
Then Year Cost			(19.5)	(13.4)	(12.6)	72.7	170.4	25.8	31.8	12.1	267.3			
Constant Year Cost			(19.1)	(12.9)	(11.9)	67.4	155.1	23.0	27.9	10.4	239.9			
Present Value			(18.6)	(12.4)	(11.3)	63.4	144.3	21.2	25.4	9.4	221.3			
Multiyear Savings (\$)			(19.5)	(13.4)	(12.6)	72.7	170.4	25.8	31.8	12.1	267.3			

NOTE: MYP Procurement Period is 12 years. Real Interest Rate for MYP Procurement Period of 12 years is 1.01120000%. (OMB Circular No. A-94, January 2018)

* Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis

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