Exhibit MYP-1, Multiyear Procurement Criteria

Date:
June 2017

Appropriation / Budget Activity:
1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)

P-1 Item Nomenclature:
DDG-51

1. Multiyear Procurement Description:

The DDG 51 Class acquisition provides for the continued procurement of the battle force surface combatant fleet, providing primary mission area capability in Integrated Air and Missile Defense (IAMD), Surface Warfare (SUW), Anti-Submarine Warfare (ASW), and Strike Warfare. The proposed FY18-FY22 Multi-Year Procurement (MYP) acquisition includes funding for 10 ships (DDGs 128-137) to be competitively awarded between the two current DDG 51 class shipbuilders, Huntington Ingalls, Inc. (HII) and General Dynamics Bath Iron Works (BIW). The DDG 51 shipbuilding program has successfully delivered 64 ships since program inception in 1985 and awarded a total of 76 ships to date, of which 12 are currently under contract or construction. With congressional authorization and approval, the program has successfully executed MYP authority for FY98-FY01 (13 ships), FY02-FY05 (11 ships), and, following program restart in 2010, FY13-17 (10 ships), realizing in excess of $4.5 billion in program savings across 34 ships. Flight III capability, which incorporates the Air and Missile Defense Radar (AMDR), AN/SPY-6, along with the necessary electrical power and cooling and ship stability modifications, will be introduced on an FY16 ship and both FY17 ships. Flight III enhances the capability of DDG 51 multi-mission destroyers by providing improved IAMD and ballistic missile defense capability to the Fleet. These ships are able to track ballistic missiles of all ranges including Intercontinental Ballistic Missiles (ICBMs), and intercept and destroy short- and medium-range ballistic missiles. These IAMD equipped ships will operate with other BMD assets to provide advance warning for the defense of the nation, deployed U.S Forces, and U.S allies.

The proposed FY18-FY22 Flight III procurement continues the current DDG 51 shipbuilding production lines at both shipyards, and provides continued stable production of ballistic missile defense-capable surface combatants and a long-term commitment to the surface combatant industrial base.

The Navy's MYP acquisition approach spans five years and includes ship construction and Vertical Launching System (VLS) procurements for up to 10 Flight III ships. In order to achieve the savings created by the DDG 51 multi-year contracting strategy and avoid disruptions to Economic Order Quantity (EOQ) equipment production, the FY18 President's Budget request includes $90 million of FY18 Advance Procurement funding, $293 million of FY19 AP, and $225 million of FY20 AP (total $608M). The savings achieved through the MYP are estimated to be $1.834 billion compared to annual pricing. The MYP strategy represents a 9.3% savings over an annual procurement strategy.

2. Benefit to the Government:

a. Substantial Savings:

Savings and Cost Avoidance: The DDG 51 program is planning a competitive acquisition strategy for the FY18-22 ships. The Profit Related to Offer (PRO) concept, whereby work is allocated among the shipbuilders but competitive pressure is maintained to achieve realistic pricing, was central to the DDG 51 ship construction in FY96-97, the FY98-FY01 MYP, the FY02-FY05 MYP, FY10-FY12, and the FY13-FY17 MYP. Under the PRO concept, contractors compete for a target profit based on their offers. The Navy has generated significant savings to the government through the use of PRO.

b. Stability of Requirement:

The DDG 51 Class Acquisition Strategy is structured to provide for continued procurement and timely replacement of battle force surface combatants. Based on the Navy's 2016 Force Structure Assessment, the Navy has a revalidated requirement for large surface combatant increased air defense and expeditionary Ballistic Missile Defense capacity and the Navy's 2016 Long Range Shipbuilding Plan outlines near and mid-term plans for the continued procurement of DDG 51 class ships equipped with Air and

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Missile Defense Radar (AMDR), AN/SPY-6 radar. DDG 51 shipbuilding program has successfully delivered 64 ships since program inception in 1985 and awarded a total of 76 ships to date. The FY18 President's Budget request includes an additional 10 DDG 51 Flight III ships between FY18-22. Reductions in DDG 51 Class ship quantities during the MYP period would result in significant cancellation costs to the government, reducing or eliminating the stated potential savings.

c. Stability of Funding:

The DDG 51 MYP is a critical component of the Navy's future year defense plan. The DDG 51 Class is a major surface combatant shipbuilding program and is given high priority by the Navy when allocating planned resources. The Department is committed to fund this MYP at the required level throughout the contract period.

d. Stable Configuration:

The DDG 51 Class program is technically mature. DDG 51-71 represent the original design and are designated as Flight I ships; DDG 72–78 are Flight II ships; Flight IIA began with DDG 79 and will continue through delivery of 124. Flight III ships will continue the evolution of the DDG 51 class with the addition of the Air and Missile Defense Radar (AN/SPY-6) providing improved sensitivity for long-range detection and engagement of advanced threats. The DDG 51 Flight III design is stable and on track for introduction beginning with a FY16 ship and follow ships. Functional and Transition Detail Design were completed in 2016. The FLT III Critical Design Review (CDR) was successfully completed in November 2016. Detail Zone design is underway and expected to complete in December 2017 in support of start of construction. Two Flight III ships will be in construction at the time of the planned FY18-22 MYP award with ships awarded in the Flight III configuration.

The Flight III DDGs utilize the same hull and major systems as current Flight IIA DDGs including LM 2500 propulsion gas turbines, Mk 41 VLS, Mk 45 five-inch Gun Weapon System, Mk 15 Phalanx Weapon System (CIWS), AN/SQQ-89 Undersea Warfare System and Tactical Tomahawk Weapon Control System. The principle dimensions and hull form will be unchanged from Flight IIA DDGs. The AN/SPY-1D(V) radar will be replaced with the AN/SPY-6 radar and the ship's power and cooling systems will be upgraded to support the new radars. The deckhouse will be modified to accept the new radar arrays.

e. Realistic Cost Estimate:

Cost estimates reflect experience with AEGIS Class ships since 1978, including 27 delivered CG 47 Class ships, and 64 DDG 51 Class ships delivered through February 2017, and 12 additional DDGs currently in construction.

The savings shown in these exhibits are based on historical experience, previous execution of DDG 51 multiyear procurements and surveys of the Class Standard Equipment (CSE) vendors and other equipment vendors. There is a high degree of confidence the DDG 51 Class program can achieve the stated savings and procure the MYP ships within the funding identified.

f. National Security:

Continued production of DDG-51 Class ships is needed to maintain the required fleet future surface combatant force level to include supporting the Ballistic Missile Defense (BMD) mission. These BMD equipped ships will operate with other BMD assets to provide advance warning for the defense of the nation, deployed U.S. Forces, and U.S.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
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allies vital to national security.

3. Source of Savings:

INFLATION - $24M of savings is attributable to inflation when comparing constant FY18 to then year dollar estimates. This represents 1% of the total MYP savings.

VENDOR PROCUREMENT/SUBCONTRACTING - The MYP permits economic order quantity procurement, which reduces the cost of material and subcontractor effort by $534M. This represents 29% of the total MYP savings. The long-term commitment offered by the MYP stabilizes the shipbuilder and GFE industrial base resulting in:

- stable employment levels and retention of skilled labor
- less disruption on vendor delivery schedules; and
- enhanced viability of the shipyards as well as other providers.

MANUFACTURING - The MYP allows continuous, stable construction of up to 10 ships. Savings of $809 result from greater shipyard and vendor efficiency, improved employment stability, and improved overhead planning and capitalization. This represents 44% of the total MYP savings.

ENGINEERING - Savings of $467 are achieved through more efficient pre-production planning at the shipyard, vendor facilities, and Navy warfare centers. The MYP creates a known future workload that allows for more efficient planning minimizing perturbations in schedule impacts across the program. This multiyear allocation of up to 10 ships is more cost effective than conducting separate annual procurements for the same number of ships. This represents 26% of the total MYP savings.

	$ in Millions
Inflation	$24.000
Vendor Procurement	$534.000
Manufacturing	$809.000
Design/Engineering	$467.000
Tool Design	$0.000
Support Equipment	$0.000
Other	$0.000
Workload Savings	$0.000
Total	**$1,834.000**

4. Advantages of the MYP:

The overall savings are achieved through lower hardware and engineering costs. Lower hardware costs result from economic order quantity procurements of shipbuilder material and major equipment; improved production efficiencies, as well as reduced production man-hours and overhead costs. Engineering hour reductions are achieved through industrial base stability resulting from known workload at contractor facilities and Navy Field Activities.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
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5. Impact on Defense Industrial Base:

IMPROVED COMPETITION
The Navy plans to implement a competitive acquisition strategy for the FY18-FY22 MYP to ensure affordable costs and reasonable profits to the vendors.

ENHANCED INVESTMENT
The FY18-FY22 MYP provides a firm, stable business base to facilitate production planning at DDG 51 Class shipbuilders, GFE vendors and second and third tier vendors. The FY18-FY22 MYP contracts provide sufficient stability to justify capital investment needed to facilitate productivity improvements at both yards.

IMPROVEMENT IN VENDOR SKILL LEVELS
The MYP allows the shipbuilder and vendors greater flexibility in scheduling and workload planning. This enables the shipbuilders and vendors to achieve a more stable prime and subcontractor workforce, resulting in enhanced productivity and lower personnel training costs. Use of multi-year contracting should result in higher retention rates, increased skill levels, and enhanced productivity at the vendor during the contract performance. These potential benefits are reflected in the MYP savings identified in these exhibits.

TRAINING PROGRAM
Since the MYP allows greater flexibility in scheduling and workload planning, shipbuilders and vendors will realize increased workforce stability. This improves worker retention and associated skill levels, and reduces hiring costs and training requirements. Supervisors and managers can be selected and trained to meet workforce requirements as well as to implement production improvements. Apprenticeship and trainee programs become more cost effective for a larger, longer procurement program. Additionally, multiyear contracting enables contractors to offer greater job security to employees, particularly at the subcontractor or vendor level.

PROGRESS PAYMENT(S)
The progress payments clauses in the FY98-FY01, FY02-FY05, and FY13-FY17 MYP ship construction contracts improve the flow of compensation to the shipbuilders, compared to previous contracts. Similar clauses will be reflected in the FY18-FY22 MYP construction contracts. GFE progress payment clauses remain similar to previous contracts.

USE OF MULTIYEAR CONTRACTORS (VENDORS)
The FY18-FY22 MYP contracts allow the shipyards (BIW and HII) to engage in joint, bulk purchase of EOQ items. The Advanced Procurement funding, also beginning in FY18, will be used for the procurement of ship construction material and VLS components to achieve EOQ savings.

INCREASED PRODUCTION CAPACITY
The production rates during the multiyear period are executable. No increase in production capacity as a result of the MYP is anticipated or required. No acceleration in delivery schedule of DDG 51 Class ships is planned. Delivery of ships under the FY18-FY22 MYP is geared toward stabilizing workload, and maintaining the surface combatant industrial base.

DEGREE OF CONFIDENCE IN CONTRACTOR CAPABILITY

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	**P-1 Item Nomenclature:** DDG-51

Bath Iron Works (BIW) and Huntington Ingalls, Inc. (HII) have been constructing AEGIS class ships since 1978 including CG 47 class cruisers and DDG 51 class destroyers.

As the lead DDG 51 Class shipbuilder, BIW, has been awarded contracts for 41 DDG 51 class destroyers and completed the construction of 35. The DDG 51 Class follow yard, HII, has been awarded contracts for 35 DDG 51 class destroyers, and completed construction of 29 ships. Similarly, DDG 51 vendors associated with the procurement of GFE, Contractor Furnished Equipment (CFE) and CSE have consistently supported the sustained procurement of the ship class.

The Navy has a high degree of confidence in the contractors' capability to deliver the required capability.

6. Multiyear Procurement Summary:

	Annual Contracts	MultiYear Contract
Quantity	10	10
Total Contract Price	$19,698.642	$17,865.433
Cancellation Ceiling (highest point)		
Funded		$ 0.000
Unfunded		$ 0.000
$ Cost Avoidance Over Annual		($1,833.209
% Cost Avoidance Over Annual		9.3%

Exhibit MYP-2 Total Program Funding Plan (NAVY)					Date: June 2017							
PROCUREMENT					P-1 Line Item Nomenclature - DDG-51 (NAVY)							
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
Procurement Quantity		2	2	2	2	2						10
Annual Procurement												
Gross Cost		3818.1	3883.0	3935.0	4000.82	4061.7						19698.6
Less PY Adv Procurement												
Net Procurement (= P-1)		3818.1	3883.0	3935.0	4000.8	4061.7						19698.6
Plus CY Adv Procurement												
Weapon System Cost		3818.1	3883.0	3935.0	4000.8	4061.7						19698.6
Multiyear Procurement												
Gross Cost (P-1)		3499.0	3513.0	3559.0	3619.00	3675.0						17865.0
Less PY Adv Procurement			39.4	114.5	227.2	227.2						(608.2)
Net Procurement (= P-1)		3499.0	3473.6	3444.5	3391.8	3447.8						17256.8
Advance Procurement												
For FY18		90.0										90.0
For FY19			293.0									293.0
For FY20				225.0								225.0
Plus CY Adv Procurement		90.0	293.0	225.0								608.0
Weapon System Cost		3589.0	3766.6	3669.5	3391.8	3447.8						17865.0
MultiyearSavings ($)		229.1	116.4	265.5	609	613.9						1833.9
Multiyear Savings (%) (total only)												9.3%
Cancellation Ceiling, Funded												
Cancellation Ceiling, Unfunded												
OUTLAYS												
Annual		2252.7	2940.1	3287.7	3607.5	3854.1	1632.9	957.1	641.8	363.1	162.5	19699.5
Multiyear		2154.8	2920.7	3087.8	3039.2	3262.0	1479.1	865.8	580.6	328.5	147.0	17865.4
Savings		97.9	19.4	200.0	568.3	592.1	153.9	91.3	61.2	34.6	15.5	1834.0

P-1 Shopping List - Item No
01-2122

* Numbers may not add due to rounding.

Exhibit MYP-2 Total Program Funding Plan (NAVY)	Date: June 2017
PROCUREMENT	P-1 Line Item Nomenclature - DDG-51 (NAVY)

Remarks

FY18 AP for FY19 ship - S/B

FY18AP for FY19 ships - VLS

FY18AP for FY20 ships - S/B

FY18AP for FY20 ships - VLS

FY19AP for FY20 ships - S/B

FY19AP for FY20 ships - VLS

FY19AP for FY21 ships - S/B

FY19AP for FY21 ships - VLS

FY19AP for FY22 ships - VLS

FY20AP for FY21 ships - S/B

FY20AP for FY22 ships - S/B

Reflects End Cost of ships.

* Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (NAVY)					Date: June 2017							
PROCUREMENT					P-1 Line Item Nomenclature - DDG-51 (NAVY)							
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
Procurement Quantity		2	2	2	2	2						10
Annual Procurement												
Gross Cost		3818.1	3883.0	3935.0	4000.82	4061.7						19698.6
Less PY Adv Procurement												
Net Procurement (= P-1)		3818.1	3883.0	3935.0	4000.8	4061.7						19698.6
Plus CY Adv Procurement												
Contract Price		3818.1	3883.0	3935.0	4000.8	4061.7						19698.6
Multiyear Procurement												
Gross Cost (P-1)		3499.0	3513.0	3559.0	3619.00	3675.0						17865.0
Less PY Adv Procurement			39.4	114.5	227.2	227.2						(608.2)
Net Procurement (= P-1)		3499.0	3473.6	3444.5	3391.8	3447.8						17256.8
Advance Procurement												
For FY18		90.0										90.0
For FY19			293.0									293.0
For FY20				225.0								225.0
Plus CY Adv Procurement		90.0	293.0	225.0								608.0
Contract Price		3589.0	3766.6	3669.5	3391.8	3447.8						17865.0
MultiyearSavings ($)		229.1	116.4	265.5	609	613.9						1833.9
Multiyear Savings (%) (total only)												9.3%
Cancellation Ceiling, Funded												
Cancellation Ceiling, Unfunded												
OUTLAYS												
Annual		2252.7	2940.1	3287.7	3607.5	3854.1	1632.9	957.1	641.8	363.1	162.5	19699.5
Multiyear		2154.8	2920.7	3087.8	3039.2	3262.0	1479.1	865.8	580.6	328.5	147.0	17865.4
Savings		97.9	19.4	200.0	568.3	592.1	153.9	91.3	61.2	34.6	15.5	1834.0

P-1 Shopping List - Item No
01-2122

* Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (NAVY)	Date: June 2017
PROCUREMENT	P-1 Line Item Nomenclature - DDG-51 (NAVY)

Remarks

FY18 AP for FY19 ship - S/B

FY18AP for FY19 ships - VLS

FY18AP for FY20 ships - S/B

FY18AP for FY20 ships - VLS

FY19AP for FY20 ships - S/B

FY19AP for FY20 ships - VLS

FY19AP for FY21 ships - S/B

FY19AP for FY21 ships - VLS

FY19AP for FY22 ships - VLS

FY20AP for FY21 ships - S/B

FY20AP for FY22 ships - S/B

Reflects End Cost of ships.

* Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (NAVY)					Date: June 2017							
PROCUREMENT					P-1 Line Item Nomenclature - DDG-51 (NAVY)							
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
Annual Proposal												
Then Year Cost		2252.7	2940.1	3287.7	3607.5	3854.1	1632.9	957.1	641.8	363.1	162.5	19699.5
Constant Year Cost		2131.6	2727.5	2990.2	3216.7	3369.2	1399.5	804.2	528.7	293.3	128.6	17589.6
Present Value		2129.5	2722	2981.2	3203.9	3352.4	1391.1	798.6	524.5	290.6	127.4	17521.3
Multiyear Proposal												
Then Year Cost		2154.8	2920.7	3087.8	3039.2	3262.0	1479.1	865.8	580.6	328.5	147.0	17865.4
Constant Year Cost		2039.0	2709.5	2808.3	2710.0	2851.6	1267.6	727.5	478.3	265.3	116.4	15973.6
Present Value		2036.9	2704.1	2799.9	2699.1	2837.4	1260.1	722.4	474.5	262.9	115.2	15912.7
Difference												
Then Year Cost		97.9	19.4	199.9	568.3	592.1	153.9	91.3	61.2	34.6	15.5	1834.0
Constant Year Cost		92.6	18.0	181.9	506.8	517.6	131.9	76.7	50.4	27.9	12.2	1616.0
Present Value		92.5	18.0	181.3	504.7	515.0	131.1	76.2	50.0	27.7	12.1	1608.6
Multiyear Savings ($)		97.9	19.4	199.9	568.3	592.1	153.9	91.3	61.2	34.6	15.5	1834.0

NOTE: MYP Procurement Period is 15 years. Real Interest Rate for MYP Procurement Period of 15 years is 1.00300000%.
(OMB Circular No. A-94, January 2017)

* Numbers may not add due to rounding.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	**P-1 Item Nomenclature:** V-22 Osprey

1. Multiyear Procurement Description:

This proposed follow-on multiyear procurement (MYP) covers the purchase of 66 budgeted V-22 aircraft in FY2018 through FY2024 under a single, seven-year, fixed-price incentive fee type contract. This procurement includes 44 CMV-22, 22 MV-22 aircraft, and will also include 4 Japan Foreign Military Sales (FMS) aircraft. The MV-22 quantity includes one FY17 OCO aircraft that replaces the combat loss in Yemen. The MYP strategy is structured to achieve $599.365 Million (TY$) in savings over the seven-year period within the Aircraft Procurement, Navy appropriation. This proposed MYP contract follows nine years of Low Rate Initial Production (LRIP) (FY1997-2006), two years of Full Rate Production (FY2006-2007), and ten years of production under the initial MYP (FY2008-FY2012) and the second MYP (FY2013-FY2017).

The MYP will include a "step ladder" clause and/or an Options clause allowing for minor fluctuation of aircraft quantities from the PB-18 budget position and to accommodate international customer's orders.

2. Benefit to the Government:

a. Substantial Savings:

Implementation of this MYP will yield substantial savings through the term of the contract. Specifically, savings for FY2013 through FY2017 attributable to this MYP strategy is estimated at $988.7 Million (TY$), for a total of 13.1%.

Overhead rates are projected to be lower as a result of stable and continuous production. A MYP provides a stable production base which alleviates year-to-year fluctuation of forward pricing rates. In addition, the long term stable procurement increases the likelihood the prime contractor will include other potential aircraft buys (i.e., Foreign Military Sales (FMS) and Other Government Aircraft sales) in the assumed business base pricing for all five years of the planned MYP.

Labor costs are projected to be significantly lower due to enhanced workforce stability. This stability is based on an expected lower employee turnover from having a guaranteed minimum production base to forecast labor needs, and avoiding hiring spikes and sudden layoffs. In addition, the more stable workforce will minimize loss of learning accumulated from previous multiyear procurements.

Material costs are projected to be significantly lower in MYP. Annual procurements result in aircraft quantities potentially fluctuating from year to year. A fluctuating business base leads to increased number of purchase orders compared to MYP. The prospect of a long term, five year buy enables prime contractor to secure Long Term Agreements (LTAs) with suppliers and make greater use of Economic Order Quantity (EOQ) buys, as well as utilize work force more efficiently. A MYP allows prime contractor to be more aggressive in the pursuit of LTAs with major suppliers.

Similarly, reducing the number of setups can provide significant savings when producing components or materials with high setup-to-run ratios, where the dollar value of the component or material is low. Low-value castings, sheet metal procurements, and forgings are examples of areas in which lower prices can be negotiated with suppliers based on reduced setup costs associated with larger quantity procurements.

Multiyear buys support broadening the competitive base with opportunity for participation by suppliers not otherwise willing or able to compete for single year procurements,

particularly in cases involving high startup costs. In addition, the contractor is more likely to second source items and drive costs down, that would be less incentivized in a single year procurement environment. The contractor is also more motivated to improve productivity through investment in capital facilities, equipment, and advanced manufacturing technology.

Many electronic components have minimum-buy quantities that may not be met under single-year procurements, potentially driving up unit costs so that total cost is artificially high or creating obsolescence risk. MYP quantities allow the prime contractor and subcontractors at all tiers to meet or exceed minimum-order quantities and capture cost avoidance on many components. Typically, suppliers will provide price discounts to lock in business. Given a seven-year contract, suppliers will have greater total business and stability. Therefore, they will be incentivized to find innovative processes and be able to justify capital investments necessary to reduce costs. Some of these cost reductions will be passed on to the customer in the form of price reductions. In addition to these types of process innovations and capital investments, competition is expected to be greater based on larger purchase volumes, and obsolescence risks and costs (principal concerns in electronic components) are expected to be minimized.

In general, parts obsolescence is minimized in a multiyear environment, as suppliers use EOQ buys and lifetime buys, maintaining efficient production and minimizing disruption. The contractor and its suppliers are more likely to go out on risk to protect parts identified as no longer available in the marketplace. Under a single year procurement , the contractor and its suppliers would be less inclined to continue the practice because of the uncertainty of future aircraft quantities and contract awards.

Since some suppliers include proposal preparation and negotiation as a direct charge to the purchase order, there will be a dollar for dollar reduction in these cases and the cost avoidance will not get lost in overhead rates. The contractor and its suppliers—in addition to the Government—will avoid the costs associated with submittal, evaluation and negotiation of proposals for each single year contract, as well as the subsequent post-award audits for each single year procurement.

In addition, more favorable labor costs, material costs and overhead rates are anticipated to have a combined impact on the overall cost of this MYP buy. The business base impact from more stable planning in terms of labor force, material orders and overhead rates can be captured by the government as well as continued inflation benefits from a stable buy using economic material orders.

Profit in a MYP is also expected to be lower than in a single year procurement . The stability and predictability of a MYP results in lower risk to the contractor, more favorable cost of capital, and improved opportunity cost calculations. The end result should be a lower percentage of profit relative to total costs.

The MYP contract will be structured with "step ladder" and/or option pricing so that additional quantities added to the contract will increase overall MYP savings.

There is potential for additional savings should the V-22 Common Configuration Readiness and Modernization Plan (CC-RAMP) be funded and approved in years overlapping FY18-24. Use of concurrent facilities, labor force, supporting engineering, and suppliers between aircraft production lines and aircraft modification lines may yield shared saving on both efforts.

b. Stability of Requirement:

The requirement for a Medium Lift Replacement aircraft is well documented within the Services. The Joint Multi-Mission Vertical Lift Aircraft Operational Requirements Document (ORD) was originally approved by the Joint Requirements Oversight Council (JROC) in April 1995. The ORD has evolved into and been superseded by the

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	**P-1 Item Nomenclature:** V-22 Osprey

current V-22 Block C/20 Capability Production Document (CPD), dated September 2010. While the Navy variant (CMV-22) has always been included in the V-22 Program of Record, the specific requirements and funding for the Navy were not approved until the Acquisition Decision Memorandum dated 4 February 2015 and the President's Fiscal Year (FY) 2016 Budget, that identified and supported procurement of a long-range Navy version of the V-22 tilt-rotor as the Carrier On-board Delivery solution to replace the C-2A. The CMV-22 requirements are defined in the Navy V-22 Airborne Resupply/Logistics for Sea basing (AR/LSB) CPD, that was endorsed by the Resources and Requirements Review Board on 9 June 2015 was approved by JROC memo JROCM 069-16 dated 25 July 2016. The MV-22 continues to be a top priority of the Marine Corps; similarly, CV-22 is one of USSOCOM's top priorities in prosecuting terrorism and insurgent activities. The Government of Japan procured five MV-22 aircraft in FY16, four in FY17 and has funded the advanced procurement for four aircraft in FY18. If any of the Services has a need for additional aircraft or additional Foreign Military Sales occur during the term of the MYP, the contract will use "Step Ladder" as a mechanism to increase the quantity of aircraft to be procured.

c. Stability of Funding:

The Defense Acquisition Board conducted a review of the V-22 program in September 2005 and directed the program to proceed to full rate production. In 2001, the Quadrennial Defense Review validated the Department's requirements for the V-22 and accelerated the production profile to speed deployment. The Navy has demonstrated commitment to a stable funding stream for the CMV-22 and MV-22 aircraft through every phase of the budgeting process by fully funding the requirement across the Future Years Defense Program. Funding support for the program has been consistently shown by the military service and Congress.

d. Stable Configuration:

The V-22 aircraft has completed over 322,000 flight hours. There are sixteen U.S. Marine Corps and three U.S. Air Force operational squadrons meeting fleet operational demands, including those supporting Special Marine Air Ground Task Forces, National Mission Tasking, and Marine Expeditionary Unit deployments. The V-22 program successfully completed its Operational Evaluation period in 2005, and was found to be operationally effective and suitable. The program reached initial operational capability for the Marine Corps' MV-22 in June 2007 and USSOCOM's CV-22 in March 2009. At the end of the current MYP contract, the program will have delivered 21 production lots of aircraft. The V-22's demonstrated stability supports contract award of the third MYP with aircraft production beginning in FY2018 (Lot 22).

e. Realistic Cost Estimate:

of aircraft, as well as a series of data/information provided by the contractor in January-July 2016. Review and validation by Secretary of Defense Office of Cost Assessment and Program Evaluation is planned to complete by May 2017.

f. National Security:

The Quadrennial Defense Review and Defense Planning Guidance have set total V-22 production quantities. These documents emphasize the criticality of the V-22 to the overall National Security Strategy and demonstrate the Department's commitment to properly fund this weapon system to the quantities proposed in the multiyear plan. The V-22 provides the armed forces and national leaders with a multi-mission aircraft capable of worldwide self-deployability, which allows for the continued execution of global military commitments while significantly reducing demands on finite strategic sealift and airlift assets.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	**P-1 Item Nomenclature:** V-22 Osprey

3. Source of Savings:

Implementation of this proposed MYP will yield substantial savings through the term of the contract. Specifically, savings from FY2018 through FY2024 attributable to this MYP strategy is estimated at $599.365 Million (TY$), for a total of 9.4%. Production quantities are expected to be below that which would achieve optimal unit pricing, therefore, a MYP will provide the stability needed to achieve substantial savings over a single year procurement at low annual production quantities.

Overhead rates are projected to be lower as a result of stable and continuous production. Though expected to be lower, the rates will be distributed among a lower quantity of aircraft than in previous MYP efforts, thus increasing unit cost. A MYP provides a stable production base that alleviates year-to-year fluctuations of forward pricing rates. In addition, the long term stable procurement increases the likelihood that the prime contractor will include other potential aircraft buys (i.e. FMS and Other Government Aircraft sales) in the assumed business base pricing for all seven years of the planned MYP and potentially provide the increased units needed to spread overhead rates across higher quantities produced.

Labor costs are projected to be stable. This stability is based on an expected lower employee turnover and the retention of skilled and experience personnel that would benefit from having a guaranteed minimum production base. In addition, the stable workforce will minimize loss of learning accumulated from previous multiyear procurements. Material costs are projected to be significantly lower in MYP. Annual procurements result in aircraft quantities potentially fluctuating from year to year. A fluctuating business base leads to increased number of purchase orders compared to MYP. The prospect of a long term, seven year buy enables prime contractor to secure Long Term Agreements (LTAs) with suppliers and make greater use of Economic Order Quantity (EOQ) buys, as well as employ their work force more efficiently. A MYP allows prime contractor to be more aggressive in the pursuit of LTAs with major suppliers.

Similarly, reducing the number of setups can provide significant savings when producing components or materials with high setup-to-run ratios, where the dollar value of the component or material is low. Low-value casting, sheet metal procurements, and forgings are examples of areas in which lower prices can be negotiated with suppliers based on the reduced setup costs associated with larger quantity procurements.

Multiyear buys support broadening the competitive base with opportunity for participation by suppliers not otherwise willing or able to compete for single year procurements, particularly in cases involving high startup costs. In addition, the contractor is more likely to second source items and drive costs down, that would be less incentivized in a single year procurement environment. The contractor is also more motivated to improve productivity through investment in capital facilities, equipment, and advanced manufacturing technology.

Many electronic components have minimum-buy quantities that may not be met under single-year procurements, potentially driving up unit costs so that total cost is artificially high or creating obsolescence risk. MYP quantities allow the prime contractor and subcontractors at all tiers to meet or exceed minimum-order quantities and capture cost avoidance on many components. Typically, suppliers will provide price discounts to lock in business. Given a seven-year contract, suppliers will have greater total business and stability. Therefore, they will be incentivized to find innovative processes and be able to justify capital investments necessary to reduce costs. Some of these cost reductions will be passed on to the customer in the form of price reductions. In addition to these types of process innovations and capital investments, competition is expected to be greater based on larger purchase volumes, and obsolescence risks and costs (principal concerns in electronic components) are expected to be minimized.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	**P-1 Item Nomenclature:** V-22 Osprey

In general, parts obsolescence is minimized in a multiyear environment, as suppliers use EOQ buys and lifetime buys, maintaining efficient production and minimizing disruption. The contractor and its suppliers are more likely to go out on risk to protect parts identified as no longer available in the marketplace. Under a single year procurement , the contractor and its suppliers would be less inclined to continue the practice because of the uncertainty of future aircraft quantities and contract awards.

Since some suppliers include proposal preparation and negotiation as a direct charge to the purchase order, there will be a dollar for dollar reduction in these cases and the cost avoidance will not get lost in overhead rates. The contractor and its suppliers—in addition to the Government—will avoid the costs associated with submittal, evaluation and negotiation of proposals for each single year contract, as well as the subsequent post-award audits for each single year procurement.

In addition, more favorable labor costs, material costs and overhead rates are anticipated to have a combined impact on the overall cost of this MYP buy. The business base impact from more stable planning in terms of labor force, material orders and overhead rates can be captured by the government as well as continued inflation benefits from a stable buy using economic material orders.

Profit in a MYP is also expected to be lower than in a single year procurement . The stability and predictability of a MYP results in lower risk to the contractor, more favorable cost of capital, and improved opportunity cost calculations. The end result should be a lower percentage of profit relative to total costs.

The MYP contract will be structured with "step ladder" and/or option pricing so that additional quantities added to the contract will increase overall MYP savings.

There is potential for additional savings should the V-22 Common Configuration Readiness and Modernization Plan (CC-RAMP) be funded and approved in years overlapping FY18-24. Use of concurrent facilities, labor force, supporting engineering, and suppliers between aircraft production lines and aircraft modification lines may yield shared saving on both efforts.

3. Source of Savings	**$ in Millions**
Inflation	$73.728
Vendor Procurement	$201.494
Manufacturing	$267.199
Design/Engineering	$0.000
Tool Design	$0.000
Support Equipment	$0.000
Other (proposal preparation & profit)	$56.944
Total	$599.365

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	**P-1 Item Nomenclature:** V-22 Osprey

4. Advantages of the MYP:

This MYP strategy has been structured to achieve substantial savings ($599.365M) and will eliminate the need to develop an annual plan on a yearly basis; one year of planning will replace seven independent years of planning. Savings from economic order quantities, manufacturing initiatives, and independent planning will result in significant benefit to industry and the Government.

The MYP strategy is also expected to instill confidence in the international community and generate additional V-22 sales that will increase overall contract savings of the MYP contract.

5. Impact on Defense Industrial Base:

Implementation of this proposed MYP will yield a favorable impact on the industrial base. The stability afforded by the use of a MYP will allow the prime contractor to enter into long-term agreements with suppliers, at every tier, that will provide substantial cost avoidance. Such long-term agreements incentivize both the prime contractor and subcontractors to invest in process improvements that yield long-term benefits in terms of product quality and cost. The stability of the prime multiyear contract will also foster improved competition at the subcontractor level, as the offer of a longer term business arrangement will encourage more aggressive pursuit of a contract award. The prime contractor and subcontractors will be at a reduced risk when implementing production process improvements, facility improvements, tooling design improvements, and fabrication process improvements. A MYP will have a significant impact to attracting FMS customers by reducing unit pricing. The ability for the Government and industry to enter into a long-term agreement will allow industry the opportunity to place capital investments upfront, sustain infrastructure, and maintain a skilled labor force that reduces the overall cost and improves the quality of the V-22.

6. Multiyear Procurement Summary:

	Annual Contracts	Multiyear Contract
Quantity	66[1]	66[1]
Total Contract Price	$6,383.350	$5,783.985
Cancellation Ceiling (highest point)		
Funded		$0.000
Unfunded		$0.000
$ Cost Avoidance Over Annual		$599.365
% Cost Avoidance Over Annual		9.4%

V-22 programs are budgeted to support a follow-on multiyear strategy and not annual contracting. If the MYP is not approved, the $599.365M will need to be added to the program funding levels to ensure that annual contracts are executable. There is no cancellation ceiling.

Note:
1. The MYP estimates and identified cost avoidance assumes 4 FMS (Japan) aircraft will be included in the MYP contract. The planned quantity of the MYP contract, including FMS, is 70.

Exhibit MYP-2 Total Program Funding Plan (MV)					Date Jun-17												
Aircraft Procurement, V-22					P-1 Line Item Nomenclature - V-22												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty	1	0	0	0	3	6	6	6									22
Annual Procurement																	
Gross Cost (P-1)	88.182	0.021	0.000	0.000	409.167	726.955	709.152	727.681									2,661.158
Less PY Adv Proc	0.000	0.000	0.000	0.000	(11.379)	(21.238)	(18.674)	(19.118)									(70.409)
Net Proc (= P-1)	88.182	0.021	0.000	0.000	397.788	705.717	690.478	708.563									2,590.749
Plus CY Adv Proc	0.000	0.000	0.000	11.379	21.238	18.674	19.118	0.000									70.409
Weapon Sys Cost	88.182	0.021	0.000	11.379	419.026	724.391	709.596	708.563									2,661.158
Multiyear Proc																	
Gross Cost (P-1)	83.386	0.021	0.000	0.000	382.535	672.235	650.055	664.612									2,452.844
Less PY Adv Proc	0.000	0.000	0.000	0.000	(8.488)	(16.431)	(13.583)	(13.855)									(52.357)
Net Proc (=P-1)	83.386	0.021	0.000	0.000	374.047	655.804	636.472	650.757									2,400.487
Adv. Proc.																	
For FY2018	0.000																0.000
For FY2019	0.000	0.000															0.000
For FY2020	0.000	0.000	0.000														0.000
For FY2021	0.000	0.000	0.000	8.488													8.488
For FY2022	0.000	0.000	0.000	0.000	16.431												16.431
For FY2023	0.000	0.000	0.000	0.000	0.000	13.583											13.583
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	13.855										13.855
Plus CY Adv Proc	0.000	0.000	0.000	8.488	16.431	13.583	13.855	0.000									52.357
Weapon Sys Cost	83.386	0.021	0.000	8.488	390.478	669.387	650.327	650.757									2,452.844
Multiyear Cost Avoidance ($)	4.796	0.000	0.000	2.891	28.548	55.004	59.269	57.806									208.314
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	15.432	27.340	28.225	9.934	80.386	262.954	485.617	615.269	529.023	332.378	122.437	70.404	46.315	24.815	10.628	0.000	2,661.158
Multiyear (Budget)	14.593	25.853	26.690	8.997	74.302	243.409	448.702	566.421	485.958	305.431	112.600	64.785	42.570	22.770	9.761	0.000	2,452.844
Cost Avoidance	0.839	1.487	1.535	0.938	6.084	19.545	36.915	48.848	43.065	26.947	9.838	5.619	3.745	2.045	0.867	0.000	208.314

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Does not include plant shutdown costs

* Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (MV)						Date Jun-17											
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty	1	0	0	0	3	6	6	6									22
Annual Procurement																	
Airframe	78.574	0.000	0.000	0.000	280.272	552.179	572.989	588.641									2,072.655
Less PY Adv Proc	0.000	0.000	0.000	0.000	(9.379)	(18.238)	(15.145)	(15.518)									(58.280)
Net Proc (= P-1)	78.574	0.000	0.000	0.000	270.893	533.941	557.844	573.123									2,014.375
Plus CY Adv Proc	0.000	0.000	0.000	9.379	18.238	15.145	15.518	0.000									58.280
Contract Price	78.574	0.000	0.000	9.379	289.131	549.086	573.362	573.123									2,072.655
Multiyear Proc																	
Airframe	73.778	0.000	0.000	0.000	253.640	497.459	513.892	525.572									1,864.341
Less PY Adv Proc	0.000	0.000	0.000	0.000	(6.488)	(13.431)	(10.054)	(10.255)									(40.228)
Net Proc (=P-1)	73.778	0.000	0.000	0.000	247.152	484.028	503.838	515.317									1,824.113
Adv. Proc.																	
For FY2018	0.000																0.000
For FY2019	0.000	0.000															0.000
For FY2020	0.000	0.000	0.000														0.000
For FY2021	0.000	0.000	0.000	6.488													6.488
For FY2022	0.000	0.000	0.000	0.000	13.431												13.431
For FY2023	0.000	0.000	0.000	0.000	0.000	10.054											10.054
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	10.255										10.255
Total Adv Proc	0.000	0.000	0.000	6.488	13.431	10.054	10.255	0.000									40.228
Contract Price	73.778	0.000	0.000	6.488	260.583	494.082	514.093	515.317									1,864.341
Multiyear Cost Avoidance ($)	4.796	0.000	0.000	2.891	28.548	55.004	59.269	57.806									208.314
																	10.1%
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	13.750	24.358	25.144	8.713	56.648	191.079	365.493	481.322	422.408	265.827	96.911	55.444	36.897	20.063	8.597	0.000	2,072.655
Multiyear	12.911	22.871	23.609	7.775	50.564	171.535	328.578	432.474	379.343	238.880	87.074	49.826	33.153	18.018	7.730	0.000	1,864.341
Cost Avoidance	0.839	1.487	1.535	0.938	6.084	19.545	36.915	48.848	43.065	26.947	9.838	5.619	3.745	2.045	0.867	0.000	208.314

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Does not include plant shutdown costs

P-1 Shopping List - Item No
01-0164

Exhibit MYP-3, Total Contract Funding Plan
(MYP, Page 8 of 15)

* Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (MV)						Date Jun-17											
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Annual Proposal																	
Then Year Cost	13.750	24.358	25.144	8.713	56.648	191.079	365.493	481.322	422.408	265.827	96.911	55.444	36.897	20.063	8.597	0.000	2,072.655
Constant Year Cost	13.750	23.904	24.191	8.210	52.232	172.559	323.278	416.972	358.409	220.912	78.880	44.200	28.810	15.343	6.439	0.000	1,788.090
Present Value	13.730	23.797	24.011	8.125	51.533	169.739	317.044	407.709	349.398	214.714	76.438	42.704	27.751	14.735	6.165	0.000	1,747.592
Multiyear Proposal																	
Then Year Cost	12.911	22.871	23.609	7.775	50.564	171.535	328.578	432.474	379.343	238.880	87.074	49.826	33.153	18.018	7.730	0.000	1,864.341
Constant Year Cost	12.911	22.445	22.714	7.327	46.622	154.908	290.627	374.655	321.869	198.518	70.873	39.721	25.886	13.779	5.790	0.000	1,608.646
Present Value	12.892	22.344	22.545	7.251	45.998	152.377	285.023	366.332	313.777	192.949	68.679	38.376	24.934	13.233	5.544	0.000	1,572.253
Difference																	
Then Year Cost	0.839	1.487	1.535	0.938	6.084	19.545	36.915	48.848	43.065	26.947	9.838	5.619	3.745	2.045	0.867	0.000	208.314
Constant Year Cost	0.839	1.459	1.477	0.883	5.610	17.650	32.651	42.317	36.540	22.394	8.007	4.479	2.924	1.564	0.649	0.000	179.444
Present Value	0.838	1.452	1.466	0.874	5.535	17.362	32.022	41.377	35.621	21.765	7.759	4.327	2.816	1.502	0.622	0.000	175.339
Multiyear Cost Avoidance ($)	0.839	1.487	1.535	0.938	6.084	19.545	36.915	48.848	43.065	26.947	9.838	5.619	3.745	2.045	0.867	0.000	208.314

Remarks

This exhibit will be prepared for the contract values. Then year costs will agree with the outlay amounts contained on MYP-3

Constant costs will be expressed in the budget year costs unless specified otherwise in the memorandum requesting submission of the budget

Present value analysis will be calculated in accordance with DoD Instruction 7041.3. The average real interest rate (0.30%) on treasury notes with 10 year and 20 year maturities was used and prorated for a 15 year period. Does not include plant shutdown costs

* Numbers may not add due to rounding.

Exhibit MYP-2 Total Program Funding Plan (CMV)					Date Jun-17												
Aircraft Procurement, V-22					P-1 Line Item Nomenclature - V-22												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty		6	7	7	6	5	6	7									44
Annual Procurement																	
Gross Cost (P-1)		727.528	876.424	793.738	673.205	572.738	701.125	879.173									5,223.931
Less PY Adv Proc		(22.453)	(34.660)	(32.397)	(27.628)	(24.883)	(21.863)	(31.717)									(195.601)
Net Proc (= P-1)		705.075	841.764	761.341	645.577	547.855	679.262	847.456									5,028.330
Plus CY Adv Proc	22.453	34.660	32.397	27.628	24.883	21.863	31.717	0.000									195.601
Weapon Sys Cost	22.453	739.735	874.161	788.969	670.460	569.718	710.979	847.456									5,223.931
Multiyear Proc																	
Gross Cost (P-1)		697.057	822.748	731.925	616.897	524.425	638.553	801.275									4,832.880
Less PY Adv Proc		(19.674)	(27.422)	(25.870)	(21.267)	(20.032)	(16.438)	(25.099)									(155.802)
Net Proc (=P-1)		677.383	795.326	706.055	595.630	504.393	622.115	776.176									4,677.078
Adv. Proc.																	
For FY2018	19.674																19.674
For FY2019	0.000	27.422															27.422
For FY2020	0.000	0.000	25.870														25.870
For FY2021	0.000	0.000	0.000	21.267													21.267
For FY2022	0.000	0.000	0.000	0.000	20.032												20.032
For FY2023	0.000	0.000	0.000	0.000	0.000	16.438											16.438
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	25.099										25.099
Plus CY Adv Proc	19.674	27.422	25.870	21.267	20.032	16.438	25.099	0.000									155.802
Weapon Sys Cost	19.674	704.805	821.196	727.322	615.662	520.831	647.214	776.176									4,832.880
Multiyear Cost Avoidance ($)	2.779	34.930	52.965	61.647	54.798	48.887	63.765	71.280									391.051
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	3.929	136.414	389.481	647.795	709.117	668.951	644.196	684.275	620.566	406.968	147.045	76.679	48.189	27.614	12.712	0.000	5,223.931
Multiyear (Budget)	3.443	129.440	368.495	609.160	660.213	617.434	591.576	626.663	568.040	372.793	134.592	70.115	44.042	25.232	11.643	0.000	4,832.880
Cost Avoidance	0.486	6.974	20.986	38.635	48.904	51.517	52.620	57.612	52.526	34.175	12.453	6.564	4.147	2.382	1.069	0.000	391.051

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Includes plant shutdown costs in FY23 and FY24

* Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (CMV)						Date Jun-17												
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty		6	7	7	6	5	6	7									44
Annual Procurement																	
Airframe		499.221	685.184	712.479	592.568	487.519	606.674	727.050									4,310.695
Less PY Adv Proc		(20.953)	(29.751)	(28.328)	(24.068)	(21.842)	(18.328)	(28.111)									(171.381)
Net Proc (= P-1)		478.268	655.433	684.151	568.500	465.677	588.346	698.939									4,139.314
Plus CY Adv Proc	20.953	29.751	28.328	24.068	21.842	18.328	28.111	0.000									171.381
Contract Price	20.953	508.019	683.761	708.219	590.342	484.005	616.457	698.939									4,310.695
Multiyear Proc																	
Airframe		468.752	631.506	650.666	536.260	439.206	544.102	649.152									3,919.644
Less PY Adv Proc		(18.174)	(22.511)	(21.801)	(17.707)	(16.991)	(12.903)	(21.493)									(131.580)
Net Proc (=P-1)		450.578	608.995	628.865	518.553	422.215	531.199	627.659									3,788.064
Adv. Proc.																	
For FY2018	18.174																18.174
For FY2019	0.000	22.511															22.511
For FY2020	0.000	0.000	21.801														21.801
For FY2021	0.000	0.000	0.000	17.707													17.707
For FY2022	0.000	0.000	0.000	0.000	16.991												16.991
For FY2023	0.000	0.000	0.000	0.000	0.000	12.903											12.903
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	21.493										21.493
Total Adv Proc	18.174	22.511	21.801	17.707	16.991	12.903	21.493	0.000									131.580
Contract Price	18.174	473.089	630.796	646.572	535.544	435.118	552.692	627.659									3,919.644
Multiyear Cost Avoidance ($)	2.779	34.930	52.965	61.647	54.798	48.887	63.765	71.280									391.051
																	9.1%
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	3.667	95.399	283.849	500.356	588.221	576.825	553.581	580.745	523.654	340.633	124.513	64.987	40.557	23.226	10.484	0.000	4,310.695
Multiyear	3.180	88.425	262.863	461.721	539.317	525.308	500.961	523.133	471.128	306.458	112.060	58.423	36.410	20.844	9.415	0.000	3,919.644
Cost Avoidance	0.486	6.974	20.986	38.635	48.904	51.517	52.620	57.612	52.526	34.175	12.453	6.564	4.147	2.382	1.069	0.000	391.051

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Includes plant shutdown costs in FY23 and FY24

* Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (CMV)						Date Jun-17											
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Annual Proposal																	
Then Year Cost	3.667	95.399	283.849	500.356	588.221	576.825	553.581	580.745	523.654	340.633	124.513	64.987	40.557	23.226	10.484	0.000	4,310.695
Constant Year Cost	3.667	93.620	273.095	471.497	542.362	520.915	489.642	503.103	444.314	283.078	101.347	51.807	31.667	17.762	7.853	0.000	3,835.730
Present Value	3.661	93.200	271.057	466.580	535.101	512.403	480.200	491.926	433.144	275.136	98.209	50.053	30.504	17.058	7.519	0.000	3,765.751
Multiyear Proposal																	
Then Year Cost	3.180	88.425	262.863	461.721	539.317	525.308	500.961	523.133	471.128	306.458	112.060	58.423	36.410	20.844	9.415	0.000	3,919.644
Constant Year Cost	3.180	86.776	252.903	435.090	497.271	474.392	443.100	453.193	399.746	254.678	91.211	46.575	28.429	15.940	7.052	0.000	3,489.537
Present Value	3.176	86.387	251.016	430.553	490.613	466.640	434.556	443.125	389.697	247.532	88.386	44.998	27.385	15.308	6.752	0.000	3,426.124
Difference																	
Then Year Cost	0.486	6.974	20.986	38.635	48.904	51.517	52.620	57.612	52.526	34.175	12.453	6.564	4.147	2.382	1.069	0.000	391.051
Constant Year Cost	0.486	6.844	20.191	36.407	45.091	46.524	46.542	49.910	44.568	28.401	10.136	5.233	3.238	1.822	0.801	0.000	346.193
Present Value	0.486	6.814	20.041	36.027	44.488	45.764	45.644	48.801	43.447	27.604	9.822	5.056	3.119	1.749	0.767	0.000	339.628
Multiyear Cost Avoidance ($)	0.486	6.974	20.986	38.635	48.904	51.517	52.620	57.612	52.526	34.175	12.453	6.564	4.147	2.382	1.069	0.000	391.051

Remarks

This exhibit will be prepared for the contract values. Then year costs will agree with the outlay amounts contained on MYP-3

Constant costs will be expressed in the budget year costs unless specified otherwise in the memorandum requesting submission of the budget

Present value analysis will be calculated in accordance with DoD Instruction 7041.3. The average real interest rate (0.30%) on treasury notes with 10 year and 20 year maturities was used and prorated for a 15 year period. Includes plant shutdown costs in FY23 and FY24

* Numbers may not add due to rounding.

Exhibit MYP-2 Total Program Funding Plan (MV/CMV)					Date Jun-17												
Aircraft Procurement, V-22					P-1 Line Item Nomenclature - V-22												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty	1	6	7	7	9	1	1	1									66
						1	2	3									
Annual Procurement																	
Gross Cost (P-1)	88.182	727.549	876.424	793.738	1,082.372	1,299.693	1,410.277	1,606.854									7,885.089
Less PY Adv Proc	0.000	(22.453)	(34.660)	(32.397)	(39.007)	(46.121)	(40.537)	(50.835)									(266.010)
Net Proc (= P-1)	88.182	705.096	841.764	761.341	1,043.365	1,253.572	1,369.740	1,556.019									7,619.079
Plus CY Adv Proc	22.453	34.660	32.397	39.007	46.121	40.537	50.835	0.000									266.010
Weapon Sys Cost	110.635	739.756	874.161	800.348	1,089.486	1,294.109	1,420.575	1,556.019									7,885.089
Multiyear Proc																	
Gross Cost (P-1)	83.386	697.078	822.748	731.925	999.432	1,196.660	1,288.608	1,465.887									7,285.724
Less PY Adv Proc	0.000	(19.674)	(27.422)	(25.870)	(29.755)	(36.463)	(30.021)	(38.954)									(208.159)
Net Proc (=P-1)	83.386	677.404	795.326	706.055	969.677	1,160.197	1,258.587	1,426.933									7,077.565
Adv. Proc.																	
For FY2018	19.674																19.674
For FY2019	0.000	27.422															27.422
For FY2020	0.000	0.000	25.870														25.870
For FY2021	0.000	0.000	0.000	29.755													29.755
For FY2022	0.000	0.000	0.000	0.000	36.463												36.463
For FY2023	0.000	0.000	0.000	0.000	0.000	30.021											30.021
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	38.954										38.954
Plus CY Adv Proc	19.674	27.422	25.870	29.755	36.463	30.021	38.954	0.000									208.159
Weapon Sys Cost	103.060	704.826	821.196	735.810	1,006.140	1,190.218	1,297.541	1,426.933									7,285.724
Multiyear Cost Avoidance ($)	7.575	34.930	52.965	64.538	83.346	103.891	123.034	129.086									599.365
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	19.361	163.754	417.706	657.730	789.503	931.905	1,129.813	1,299.544	1,149.589	739.346	269.483	147.082	94.504	52.429	23.340	0.000	7,885.089
Multiyear (Budget)	18.036	155.293	395.185	618.157	734.515	860.843	1,040.279	1,193.084	1,053.998	678.224	247.192	134.900	86.612	48.002	21.404	0.000	7,285.724
Cost Avoidance	1.326	8.461	22.521	39.573	54.988	71.062	89.534	106.460	95.591	61.122	22.291	12.182	7.892	4.427	1.936	0.000	599.365

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Includes plant shutdown costs in FY23 and FY24

* Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (MV/CMV)						Date Jun-17											
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Proc Qty	1	6	7	7	9	1	1	1									66
						1	2	3									
Annual Procurement																	
Airframe	78.574	499.221	685.184	712.479	872.840	1,039.698	1,179.663	1,315.691									6,383.350
Less PY Adv Proc	0.000	(20.953)	(29.751)	(28.328)	(33.447)	(40.080)	(33.473)	(43.629)									(229.661)
Net Proc (= P-1)	78.574	478.268	655.433	684.151	839.393	999.618	1,146.190	1,272.062									6,153.689
Plus CY Adv Proc	20.953	29.751	28.328	33.447	40.080	33.473	43.629	0.000									229.661
Contract Price	99.527	508.019	683.761	717.598	879.473	1,033.091	1,189.819	1,272.062									6,383.350
Multiyear Proc																	
Airframe	73.778	468.752	631.506	650.666	789.900	936.665	1,057.994	1,174.724									5,783.985
Less PY Adv Proc	0.000	(18.174)	(22.511)	(21.801)	(24.195)	(30.422)	(22.957)	(31.748)									(171.808)
Net Proc (=P-1)	73.778	450.578	608.995	628.865	765.705	906.243	1,035.037	1,142.976									5,612.177
Adv. Proc.																	
For FY2018	18.174																18.174
For FY2019	0.000	22.511															22.511
For FY2020	0.000	0.000	21.801														21.801
For FY2021	0.000	0.000	0.000	24.195													24.195
For FY2022	0.000	0.000	0.000	0.000	30.422												30.422
For FY2023	0.000	0.000	0.000	0.000	0.000	22.957											22.957
For FY2024	0.000	0.000	0.000	0.000	0.000	0.000	31.748										31.748
Total Adv Proc	18.174	22.511	21.801	24.195	30.422	22.957	31.748	0.000									171.808
Contract Price	91.952	473.089	630.796	653.060	796.127	929.200	1,066.785	1,142.976									5,783.985
Multiyear Cost Avoidance ($)	7.575	34.930	52.965	64.538	83.346	103.891	123.034	129.086									599.365
																	9.4%
Cancellation Ceiling, Funded																	
Cancellation Ceiling, Unfunded																	
OUTLAYS																	
Annual	17.417	119.757	308.993	509.069	644.869	767.904	919.073	1,062.066	946.062	606.460	221.425	120.431	77.455	43.289	19.081	0.000	6,383.350
Multiyear	16.092	111.296	286.472	469.496	589.882	696.842	829.539	955.607	850.471	545.338	199.134	108.248	69.563	38.861	17.145	0.000	5,783.985
Cost Avoidance	1.326	8.461	22.521	39.573	54.988	71.062	89.534	106.460	95.591	61.122	22.291	12.182	7.892	4.427	1.936	0.000	599.365

Remarks

Outlay based on Gross Cost

This chart will compare the funding for the annual proposal and multiyear proposal.If there are multiple MYPs proposed for the same line items,the annual program should reflect only annual procurements and the multiyear program should reflect funding for all the proposed multiyear programs. Includes plant shutdown costs in FY23 and FY24

P-1 Shopping List - Item No
01-0164

* Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (MV/CMV)						Date Jun-17											
Aircraft Procurement, V-22						P-1 Line Item Nomenclature - V-22											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TOTAL
Annual Proposal																	
Then Year Cost	17.417	119.757	308.993	509.069	644.869	767.904	919.073	1,062.066	946.062	606.460	221.425	120.431	77.455	43.289	19.081	0.000	6,383.350
Constant Year Cost	17.417	117.524	297.286	479.708	594.594	693.474	812.920	920.076	802.723	503.990	180.227	96.008	60.477	33.105	14.292	0.000	5,623.820
Present Value	17.391	116.997	295.068	474.704	586.633	682.142	797.245	899.635	782.542	489.850	174.647	92.757	58.254	31.793	13.684	0.000	5,513.343
Multiyear Proposal																	
Then Year Cost	16.092	111.296	286.472	469.496	589.882	696.842	829.539	955.607	850.471	545.338	199.134	108.248	69.563	38.861	17.145	0.000	5,783.985
Constant Year Cost	16.092	109.221	275.618	442.417	543.894	629.300	733.727	827.849	721.615	453.196	162.084	86.296	54.315	29.719	12.842	0.000	5,098.183
Present Value	16.068	108.731	273.561	437.803	536.611	619.017	719.579	809.458	703.473	440.481	157.065	83.374	52.319	28.541	12.296	0.000	4,998.376
Difference																	
Then Year Cost	1.326	8.461	22.521	39.573	54.988	71.062	89.534	106.460	95.591	61.122	22.291	12.182	7.892	4.427	1.936	0.000	599.365
Constant Year Cost	1.326	8.303	21.668	37.290	50.701	64.174	79.193	92.227	81.108	50.794	18.143	9.712	6.162	3.386	1.450	0.000	525.637
Present Value	1.324	8.266	21.506	36.901	50.022	63.125	77.666	90.178	79.069	49.369	17.582	9.383	5.935	3.252	1.389	0.000	514.967
Multiyear Cost Avoidance ($)	1.326	8.461	22.521	39.573	54.988	71.062	89.534	106.460	95.591	61.122	22.291	12.182	7.892	4.427	1.936	0.000	599.365

Remarks

This exhibit will be prepared for the contract values. Then year costs will agree with the outlay amounts contained on MYP-3
Constant costs will be expressed in the budget year costs unless specified otherwise in the memorandum requesting submission of the budget Present value analysis will be calculated in accordance with DoD Instruction 7041.3
Includes plant shutdown costs in FY23 and FY24

* Numbers may not add due to rounding.

Exhibit MYP-1, Multiyear Procurement Criteria

Date:
June 2017

Appropriation / Budget Activity:
1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)

P-1 Item Nomenclature:
VIRGINIA Class Submarine

1. Multiyear Procurement Description:

The VIRGINIA Class Submarine Program oversees the acquisition of an affordable nuclear-powered attack submarine with multi-mission capability, SEAWOLF or better stealth, and enhanced performance in littoral areas. The program originally received Multi-Year Procurement (MYP) authority in the National Defense Authorization Act for Fiscal Year (FY) 2004 for the FY04–08 SSNs known as Block II all of which delivered early to contract and within budget. The program is currently executing its third and fourth MYP contracts; the FY 2009–2013 SSNs are being procured on an eight ship MYP contract known as Block III, the first three of which have been delivered as of March 2017 with the balance to be delivered by January 2019. The FY14–18 SSNs are being procured on a 10 Ship MYP contract (Block IV) with deliveries scheduled between June 2019 and August 2023.

The FY18 President's Budget will request FY18 Authorization Language for a ten ship, five year MYP contract for SSNs to be procured in FY19–23. Due to the complexity of shipbuilding contracts, much of the proposal development, as well as negotiations between the Department of the Navy (DON) and the shipbuilders will take place in FY17 and FY18 with an anticipated contract award in early FY19. MYP authority is anticipated in October 2017 in the FY18 Authorization language which will help facilitate negotiation efforts as this communicates support to the submarine industrial base and eliminates workload uncertainty. In order to achieve the cost savings afforded through this strategy, Economic Order Quantity (EOQ) funding for the twenty-ninth through the thirty-eighth ships is required in FY19–FY21 in the amounts of $986M, $882M, and $427M, respectively. The Navy's budget request is predicated on MYP contracting and sustained build rate in accordance with the Annual Long-Range Plan for Construction of Naval Vessels for FY 2018.

Originally mandated in the FY1998 NDAA (PL 105-85), the shipbuilder teaming arrangement between General Dynamics Electric Boat (GDEB) and Huntington Ingalls Industries-Newport News Shipbuilding (HII-NNS) is assumed to continue for the duration of the MYP.

This submission is intended to satisfy congressional notification requirements.

2. Benefit to the Government:

a. Substantial Savings:

The overall savings are achieved through lowered hardware costs resulting from escalation/inflation avoidance, large lot procurement of shipbuilder material and major equipment, improved manufacturing efficiencies, and lower production man-hours and overhead costs. Achieving these savings requires funding stability.

b. Stability of Requirement:

The VIRGINIA Class program is an affordable replacement for retiring LOS ANGELES Class attack submarines. The

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	**P-1 Item Nomenclature:** VIRGINIA Class Submarine

VIRGINIA Class is optimized to be a more capable submarine meeting both the peacetime and warfighting requirements of the 21st century. The program has strong support and is stable, having the program of record recently updated to reflect an increase from 30 to 48 submarines via the signed Acquisition Program Baseline (APB) update 13 April 2017.

c. Stability of Funding:

The VIRGINIA Class MYP is a critical component of the Navy's FYDP. The VIRGINIA Class is one of the Navy's largest ship procurement programs. The Department is committed to fund this MYP at the required level throughout the contract period, as it is the most economical means of meeting the attack submarine requirement cited above.

d. Stable Configuration:

The VIRGINIA Class program technology is mature with Full Rate Production approval and Full Operational Capability achieved in September 2010. The base design, including supporting technical logistics products, is complete and stable. The Integrated Production Process Development (IPPD) application utilizing computer-aided design identified potential construction problems before construction efforts began, resulting in the most successful ship or submarine design program in the Navy's history. The Block V MYP will introduce the VIRGINIA Payload Module (VPM) and incorporation of Acoustic Superiority (AS) design changes from the baseline configuration. Neither VPM nor AS design changes will introduce new technologies as the subsystems have already been fielded on other VIRGINIA Class, Los Angeles Class or SSGNs. The VPM and AS designs are expected to be greater than 80 percent complete at construction start and is a considerable increase in design completeness as compared to the Block III Design for Affordability (DFA) redesign which was 60 percent complete at construction start under an MYP contract. Block III DFA and VPM have the same number of design products and VPM represents fewer changes to base ship design further illustrating the design maturity and stability of the program.

e. Realistic Cost Estimate:

The cost estimates shown in these exhibits are based on historical shipbuilding and submarine program experience; the IPPD contract structure and actual performance on the first submarines under construction. There is a high degree of confidence the VIRGINIA Class program can achieve the projected savings and complete the ships procured under the MYP within the funding identified.

In support of the program's APB update to extend the program of record from 30 to 48 ships, the Navy prepared a Component Cost Position (CCP), which was approved by the Cost Review Board in August 2016. The Naval Center for Cost Analysis (NCCA) also completed an Independent Cost Assessment (ICA) to validate the CCP.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	**P-1 Item Nomenclature:** VIRGINIA Class Submarine

f. National Security:

Production of VIRGINIA Class submarines is needed to maintain the required attack submarine fleet force level. The Navy's MYP strategy as discussed herein is the most cost-effective way to meet national security requirements.

3. Source of Savings:

Vendor Procurement – The MYP permits EOQ procurement, which reduces the cost of subcontractor effort, material and components. The long-term commitment offered by MYP stabilizes the shipbuilder and GFE industrial base resulting in:

- increased competition through market entry attractiveness
- shipyard negotiating leverage with vendor base
- less disruption of vendor delivery schedules
- stable employment levels and retention of skilled labor

Inflation Adjustment – These savings result from buying out-year ship material and component requirements earlier as part of EOQ purchases. The avoidance of the OSD portion of the inflation (without vendor base adjustment) indicates savings attributed to inflation.

Manufacturing Savings – Construction schedule reduction will result in savings identified in the table above. This is dependent on material in-yard-need dates being met and process improvements. EOQ funds allow for shipbuilders to ensure that material is available to support a shortened construction span. Shipbuilder studies indicate that traditional one-year Advance Procurement (AP) will not be sufficient to ensure in-yard-need dates are met for a reduced construction span build plan.

Workload/Other Savings – Under an MYP contract, the shipbuilders are assured of the build rate over the five years of the contract (FY19–23) which reduces risk of workload fluctuations. Reduced risk of workload fluctuation is estimated to reduce costs for a ten-ship MYP contract compared to a standard contract with options.

	$ in Millions
Inflation	$825.000
Vendor Procurement	$2,869.000
Manufacturing	$694.000
Design/Engineering	$0.000
Tool Design	$0.000
Support Equipment	$0.000
Other	$1,095.000
Workload Savings	$0.000

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	**P-1 Item Nomenclature:** VIRGINIA Class Submarine

Total **$5,483.000**

4. Advantages of the MYP:

The Navy achieves substantially reduced costs from this strategy of a ten-ship, five-year MYP with EOQ material procurement. The Navy, the shipbuilders, and the industrial base all benefit from reduced hardware costs due to inflation avoidance, large lot vendor procurement of shipbuilder material and major equipment, and improved procurement stability.

5. Impact on Defense Industrial Base:

Market Entry Attractiveness – The manufacture of submarine equipment represents a niche market for many suppliers. Profiles of single or partial submarine acquisitions per year have historically prevented suppliers from entering the marketplace due to the inability to confidently project recovery of start-up costs. The FY19–23 MYP contracting strategy will solidify the Navy's commitment to a stable submarine production program.

Enhanced Investment – The FY19–23 MYP provides a firm business base to facilitate production planning at VIRGINIA Class shipbuilders and second and third-tier vendors. Both VIRGINIA Class shipbuilders have achieved significant productivity improvements through the VIRGINIA Class Submarine's IPPD Design-Build contract. The FY19-23 MYP contract will provide sufficient stability to justify capital investments, similar to the CAPEX investments used in the Block III and IV contracts, needed to continue productivity improvements at both yards and within the vendor base.

Improvement in Skill Levels – The MYP allows the shipbuilders greater flexibility in scheduling and workload planning. This enables the shipbuilder to achieve a more stable prime and subcontractor workforce, resulting in enhanced productivity, lower training costs, and attractive job opportunities for new employees. The manufacture of submarine equipment requires a labor force that possesses unique skill sets not routinely found in the shipbuilding industry. Use of MYP contracting should result in higher retention rates and increased skill levels, while enhancing productivity in both the shipbuilders and in the vendor base. The potential benefits are reflected in the MYP savings identified in these exhibits.

Training Program – Since the MYP allows the shipbuilders greater flexibility in scheduling and workload planning, the shipbuilders should realize increased workforce stability. This should improve worker retention and skill levels and reduce hiring costs and training requirements. Where training is required, the benefits (i.e., productivity improvements, new or improved skill levels) are potentially greater when compared to an annual procurement environment. Apprenticeship and trainee programs become more cost effective for a larger, more stable MYP program. Additionally, multiyear contracting should enable contractors to offer greater job security to employees, particularly at the subcontractor or vendor level.

Use of Multiyear Contracts for Vendor Equipment – The government will enter into a single multiyear contract with the teamed shipbuilders: Electric Boat Corporation, a General Dynamics Company, and Newport News Shipbuilding, a division of Huntington Ingalls Industries. This will decrease the shipbuilders' risk in entering into multiyear contracts with their vendors.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: June 2017
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	**P-1 Item Nomenclature:** VIRGINIA Class Submarine

Multiyear contracting authority will also create opportunities for the Navy to enter multiyear equipment contracts for government furnished equipment. Preliminary estimates indicate the Navy will be able to achieve equivalent savings for government furnished equipment to those expected by the shipbuilder.

Increased Production Capacity – The production rates during the multiyear period are executable. Delivery of submarines under the FY19–23 MYP is geared toward stabilizing workload and reducing overall ship end cost.

6. Multiyear Procurement Summary:

	Annual Contracts	MultiYear Contract
Quantity	10	10
Total Contract Price	$38,175.000	$32,692.000
Cancellation Ceiling (highest point)		
Funded		$ 0.000
Unfunded		$ 0.000
$ Cost Avoidance Over Annual		$5,483.000
% Cost Avoidance Over Annual		14.4%

TOTAL PROGRAM FUNDING PLAN

VIRGINIA CLASS

(TY$ in Millions)

Note: $85M of FY19 Full Funding removed in anticipation of FY17 Congressional Interest AP add not included in exhibit. Total MYP estimated savings based on increased budget requirement will reduce estimated savings by 0.2%.

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Total
PROCUREMENT QUANTITY	N/A	N/A	2	2	2	2	2	10
ANNUAL PROCUREMENT								
END ITEM		0	7,415	7,513	7,658	7,761	7,828	**38,175**
LESS ADVANCED PROCUREMENT		0	2,015	1,757	1,905	1,888	1,959	9,524
NET REQUEST (Full Funding)		0	5,400	5,756	5,753	5,873	5,869	28,651
AP Total								
FY19	1,291	724						2,015
FY20		1,168	589					1,757
FY21			1,231	674				1,905
FY22				1,269	619			1,888
FY23					1,327	632		1,959
TOTAL REQUIRED FUNDING (TOA)	1,291	1,892	7,220	7,699	7,699	6,505	5,869	**38,175**
MULTI-YEAR PROPOSAL								
END ITEM		0	6,429	6,443	6,543	6,565	6,713	**32,692**
LESS ADVANCED PROCUREMENT/EOQ		0	2,044	2,003	2,381	2,642	2,713	11,784
NET REQUEST (Full Funding)		0	4,385	4,440	4,161	3,922	4,001	20,908
AP Total								
FY19	1,291	753						2,044
FY20		1,168	835					2,003
FY21			1,469	913				2,381
FY22			246	1,563	833			2,642
FY23			246	294	1,540	632		2,713
TOTAL REQUIRED FUNDING (TOA)	1,291	1,921	7,181	7,209	6,535	4,554	4,001	**32,692**
MULTIYEAR SAVINGS	0	(29)	39	490	1,165	1,951	1,868	5,483

OUTLAYS	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
ANNUAL (FY19-23 SUBS ONLY)	76	374	1,103	2,554	4,156	5,372	6,124	6,232	4,886	3,438	2,197	1,166	310	184	3	0	38,175
MULTI-YEAR (FY19-23 SUBS ONLY)	76	374	1,103	2,528	3,995	4,911	5,268	5,137	3,882	2,640	1,599	836	216	126	2	0	32,692
SAVINGS	0	0	0	27	161	461	855	1,095	1,004	798	598	330	94	59	1	0	5,483

CONTRACT FUNDING PLAN

VIRGINIA CLASS CONSTRUCTION CONTRACT WITH ESCALATION (SCN) BY END COST

(TY$ in Millions)

Note: $85M of FY19 Full Funding removed in anticipation of FY17 Congressional Interest AP add not included in exhibit. Total MYP estimated savings based on increased budget requirement will reduce estimated savings by 0.2%.

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
PROCUREMENT QUANTITY															
	2	2	2	2	2										10
ANNUAL PROCUREMENT															
END ITEM	$5,421	$5,510	$5,599	$5,642	$5,649										**$27,821**
LESS ADVANCED PROCUREMENT	$925	$636	$682	$689	$719										$3,651
TOTAL REQUIRED FULL FUNDING	$4,495	$4,875	$4,917	$4,953	$4,930										$24,170
MULTI-YEAR PROCUREMENT															
END ITEM	$4,564	$4,560	$4,607	$4,573	$4,665										**$22,968**
LESS ADVANCED PROCUREMENT/EOQ	$925	$877	$1,174	$1,388	$1,418										$5,782
TOTAL REQUIRED FULL FUNDING	$3,638	$3,683	$3,432	$3,185	$3,247										$17,186
MULTIYEAR SAVINGS	$857	$950	$992	$1,070	$984										**$4,854** *

OUTLAYS

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
TY$M															
ANNUAL (FY19-23 SUBS ONLY)	$319	$1,419	$2,671	$3,624	$4,523	$4,975	$3,966	$2,875	$1,938	$1,053	$278	$177	$3	$0	**$27,821**
MULTI-YEAR (FY19-23 SUBS ONLY)	$268	$1,190	$2,226	$3,001	$3,729	$4,099	$3,261	$2,361	$1,589	$867	$227	$146	$3	$0	**$22,968**
SAVINGS	$50	$229	$445	$623	$794	$876	$705	$514	$350	$185	$51	$31	$1	$0	**$4,854**

* Does not include GFE Savings

NON CONTRACT FUNDING PLAN

VIRGINIA CLASS NON CONSTRUCTION CONTRACT WITH ESCALATION (SCN) BY END COST

(TY$ in Millions)

Note: $85M of FY19 Full Funding removed in anticipation of FY17 Congressional Interest AP add not included in exhibit. Total MYP estimated savings based on increased budget requirement will reduce estimated savings by 0.2%.

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
PROCUREMENT QUANTITY															
	2	2	2	2	2										10
ANNUAL PROCUREMENT															
END ITEM	$1,995	$2,003	$2,060	$2,119	$2,179										**$10,354**
LESS ADVANCED PROCUREMENT	$1,090	$1,121	$1,223	$1,199	$1,240										$5,873
TOTAL REQUIRED FULL FUNDING	$905	$882	$836	$919	$939										$4,481
	905														
MULTI-YEAR PROCUREMENT															
END ITEM	$1,865	$1,883	$1,936	$1,992	$2,048										**$9,725**
LESS ADVANCED PROCUREMENT/EOQ	$1,119	$1,127	$1,207	$1,254	$1,295										$6,002
TOTAL REQUIRED FULL FUNDING	$746	$756	$729	$737	$753										$3,722
MULTIYEAR SAVINGS	130	120	123	127	130										**$630** *

OUTLAYS

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
TY$M															
ANNUAL (FY19-23 SUBS ONLY)	117	521	978	1,330	1,674	1,856	1,486	1,081	734	402	106	68	1	0	**$10,354**
MULTI-YEAR (FY19-23 SUBS ONLY)	110	488	917	1,249	1,573	1,744	1,397	1,016	690	378	99	64	1	0	**$9,725**
SAVINGS	8	33	61	81	102	112	89	65	44	24	6	4	0	0	**$630**

* Does not include CFE Savings

PRESENT VALUE ANALYSIS (TOA)
VIRGINIA CLASS

OUTLAYS ($ in Millions)

Note: $85M of FY19 Full Funding removed in anticipation of FY17 Congressional Interest AP add not included in exhibit. Total MYP estimated savings based on increased budget requirement will reduce estimated savings by 0.2%.

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL
ANNUAL PROPOSAL																	
THEN YEAR DOLLARS	76	374	1103	2554	4156	5372	6124	6232	4886	3438	2197	1166	310	184	3	0	38175
PRESENT VALUE = 2.26	73	353	1018	2305	3668	4636	5167	5142	3942	2712	1695	880	229	133	2	0	31955
MULTIYEAR PROCUREMENT																	
THEN YEAR DOLLARS	76	374	1103	2528	3995	4911	5268	5137	3882	2640	1599	836	216	126	2	0	32692
PRESENT VALUE = 2.26	73	353	1018	2281	3526	4238	4446	4238	3132	2083	1234	631	159	91	2	0	27503
DIFFERENCE																	
THEN YEAR DOLLARS	0	0	0	27	161	461	855	1095	1004	798	598	330	94	59	1	0	5483
PRESENT VALUE = 2.26	0	0	0	24	142	398	722	903	810	630	461	249	70	42	1	0	4452