Exhibit MYP-1, Multiyear Procurement Criteria		Date: September 2018
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	P-1 Item Nomenclature: E-2D Advanced Hawkeye (AHE) MYP-II	

1. Multiyear Procurement Description:

This proposed Multiyear Procurement (MYP) covers the purchase of 24 E-2D AHE aircraft in FY2019 through FY 2023 under a single five-year fixed price type contract. The E-2D AHE program includes four years of Low Rate Initial Production (LRIP) (FY2009-2012) and 11 years of Full Rate Production (FRP) (FY2013-FY2023).

The MYP will include a Variation in Quantity Clause of up to 18 E-2D AHE aircraft allowing for potential Navy plus-up aircraft and/or additional Foreign Military Sales (FMS) aircraft which would not be included in the MYP quantity.

2. Benefit to the Government:

a. Substantial Savings:

Implementation of this proposed MYP will yield opportunity for cost savings through the term of the contract. Specifically, cost savings for FY2019 through FY2023 attributable to this MYP strategy is estimated at \$336 Million (TY\$). This level of savings is based on a comparison of the estimated prices for five single year contracts to the estimated price for one five year multiyear contract.

Administrative costs are reduced since there is only one proposal, negotiation, and contract award instead of five annual procurement actions. These costs are reduced to the prime contractor, since they have only one contract to negotiate with the government vice five. Prime contractor costs will also be reduced as subcontracts at all tiers will only be entered into once. 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. Another administrative reduction is realized in production planning. Cost avoidance will be gained as production line administrative processes will only be performed once, rather than five times under single year procurements. Additionally, the workload on the Government's acquisition workforce will be reduced via the MYP, resulting in greater efficiency in other E-2D AHE acquisition operations.

The prime contractor sets the standard for the suppliers that support the Prime's contract commitments and, as new processes and innovations are implemented at the prime facility, the suppliers are encouraged to adopt those elements that enhance performance. The stability of long term commitments supported by multiyear contracts provides the collateral required to support the Prime's financial investments.

Many electronics components have minimum buy quantities which may not be met under single year procurements, driving up unit costs so that total cost is artificially high. MYP quantities will allow the prime contractor and subcontractors at all tiers to exceed minimum order quantities and capture cost avoidance on these components. Long-term Agreements will provide price discounts to lock in business. Given a five year contract, suppliers will have greater total business and stability. Therefore, suppliers will be capable of finding 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 are expected to be minimized.

Procuring at a guaranteed rate of minimum production will also yield cost avoidances. Allowing the contractor to manage facilities and subcontractors to a guaranteed production rate will reduce costs by allowing the Prime and subcontractors to engage in activities including, but not limited to, reducing the number of production set-ups,

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria		Date: September 2018
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	P-1 Item Nomenclature: E-2D Advanced Hawkeye (AHE) MYP-II	

reducing administrative costs, and receiving price breaks for committed raw materials and components.

The cost avoidance associated with this MYP will principally be achieved as a result of Economic Order Quantity (EOQ) investments. Procuring select components at EOQs also will reduce costs by reducing the number of production set-ups, reducing administrative costs, receiving price breaks for raw materials and components, minimizing obsolescence risks/costs and further stabilizing the E-2D AHE supply chain. Reducing the number of set-ups can provide a significant cost avoidance/savings when producing components or materials with high set-up to run ratios and the dollar value of the component is low. Sheet metal procurement and low value castings and forgings are examples of areas in which lower prices can be negotiated with suppliers based on reduced set-up costs associated with larger quantity procurements.

b. Stability of Requirement:

The E-2D Advanced Hawkeye aircraft, an ACAT-ID program, equipped with the APY-9 radar, provides a two-generation leap in airborne surveillance radar capability, significantly improving detection and tracking of small targets overland and in the littorals, as well as the maritime environment. The radar, with space-time adaptive processing, when combined with the improved Identification Friend or Foe (IFF) system, the ALQ-217 ESM system, Cooperative Engagement Capability (CEC) and Link-16, improves every facet of tactical air operations. The E-2D AHE is designed to provide detection and tracking capabilities against emerging air and cruise missile threats in high clutter environments, in support of the Integrated Air and Missile Defense mission area.

The 31 March 2013 Acquisition Decision Memorandum issued in conjunction with the Full Rate Production Decision Review, retained the production quantity of 70 E-2D AHE aircraft; the current production inventory objective.

The current Capability Development Document (CDD) version (written in lieu of a Capability Production Document (CPD)) was approved by the Joint Requirements Oversight Council (JROC) in March 2009.

c. Stability of Funding:

Defense Planning Guidance (DPG) has fixed the total program and Future Years Defense Program (FYDP) quantities. This document emphasizes the criticality of the E-2D AHE to overall DoD aviation planning and demonstrates the Department's commitment to properly fund this weapon system to the quantities proposed in the multiyear plan.

The Navy has demonstrated its commitment to a stable funding stream for the E-2D AHE MYP through every step of this year's budget process by fully funding the requirement. This commitment was reaffirmed by top level Navy leadership through its support in the final budget submission. Funding support for the E-2D AHE has consistently been demonstrated by both the Navy and the Congress.

d. Stable Configuration:

The E-2D AHE is currently in Follow-On Operational Test and Evaluation (FOT&E) for Delta System/Software Configuration Builds. All aircraft have the same stable configuration. As of May 2017, E-2D AHE aircraft have flown over 29,100 hours. The E-2D AHE program continues to remain on cost and deliver on schedule. To date, 10 Full Rate Production (FRP) aircraft deliveries have been completed in accordance with the contract delivery schedule. This brings the total deliveries to 30 aircraft, of which

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria		Date: September 2018
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	P-1 Item Nomenclature: E-2D Advanced Hawkeye (AHE) MYP-II	

five were procured with RDT&E funding and 15 were Low Rate Initial Production (LRIP) aircraft. Of the 10 FRP aircraft, five are from the first MYP.

Future upgrades are planned. The E-2D AHE aircraft have and will continue to have a stable design and a planned roadmap of pre-planned additional capabilities. The contractor has unrivaled technical success, production and field experience garnered from the E-2 program since the early 1970s.

e. Realistic Cost Estimate:

The estimate for both the cost of the MYP contract and anticipated cost savings through the use of the MYP for the E-2D AHE are realistic. The NAVAIR 4.2 validated cost model has been used based on actual costs on four years of LRIP contracts and one year of FRP contracts. The Full Rate Production proposal for FRP Lots 7-11 (MYP) is due in September 2017. The Secretary of Defense Office of Cost Assessment and Program Evaluation (CAPE) will commence a MYP cost analysis in August 2017.

The independent single-year cost estimate developed by the CAPE, when compared to the proposed MYP strategy, will validate the projected savings under a multiyear scenario. Additionally, the projected multiyear savings are within historical projected savings ranges.

f. National Security:

As a result of a Critical Nunn-McCurdy unit cost breach in June 2009, the E-2D AHE program was certified essential to the National Security. In May 2009, the JROC concluded that continuation of the E-2D AHE program is essential to the national security. This is documented in the 10 June 2009 JROC Memorandum number 102-09. The capabilities provided by the E-2D AHE are aligned with the National Defense Strategy and the Guidance for the Development of the Force which specifically identified improved defense against air and cruise missile threats. The combatant commanders cited a need for E-2D AHE aircraft as critical to successfully prosecuting current and future operational plans of the joint commander as well as the Navy operations. The E-2D AHE program provides carrier-based airborne surveillance, detection, and tracking of aircraft and cruise missiles in the overland and littoral environments, as well as overwater, at the extended ranges required to defend against current and projected future threats, This capability fills identified capability gaps in air and cruise missile defense and allows the joint commander to extend air defense capability for forces ashore and afloat. No other program can provide the required capability for integrated air and cruise missile defense or provide the mobility required to defend forces ashore or afloat away from fixed locations at less cost.

3. Source of Savings:

- (1) The E-2D AHE program experienced a cost growth in excess of the critical cost growth threshold pursuant to section 2433(d) of Title 10 U.S.C on 11 June 2009.
- (2) As of 20 June 2017, 32 E-2D AHE aircraft have been delivered at or within cost estimates of the Program Acquisition Unit Cost (PAUC) and Procurement Unit Cost (PUC), verifying the estimates of PAUC and PUC are realistic.
- (3) During FY2019, sufficient funds will be available to perform the contract that year, and the future-year defense program for FY2019 will include funding required to execute the program without cancellation.

Exhibit MYP-1, Multiyear Procurement Criteria

(MYP, Page 3 of 8)

Date: Exhibit MYP-1, Multiyear Procurement Criteria September 2018 **Appropriation / Budget Activity:** P-1 Item Nomenclature: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01) E-2D Advanced Hawkeve (AHE) MYP-II (4) The E-2D AHE MYP contract will be a fixed price type contract. \$ in Millions Inflation \$32.000 Vendor Procurement \$111.000 Manufacturing \$108,000 Design/Engineering \$85,000 Tool Design \$0.000 Support Equipment \$0.000 Other \$0.000 Workload Savings \$0.000 Total \$336.000

4. Advantages of the MYP:

This MYP strategy has been structured to achieve significant cost avoidance of \$336M and provide quantity flexibility for emergent requirements. The government will have the right to increase the quantity not to exceed eight aircraft in any year (after the first year) at the time of initial funding for that year. The ability to increase quantities also benefits the government by providing an ability to procure emergent requirements for more aircraft without breaking the MYP or disturbing savings/cost avoidance already established in baseline.

Commitment to production allows amortization of costs across larger production lots increases predictability of overhead costs, improves buying power and is a cost benefit through inflation avoidance by accelerating purchases. Given a five year contract, suppliers will have greater total business stability. This business stability will be beneficial to the post MYP single year FRP procurement in FY2024.

5. Impact on Defense Industrial Base:

Implementation of this proposed MYP will have 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, which provides cost avoidance. Such long term agreements incentivize both the prime and the subcontractors to invest in process improvements such as those previously cited, which will 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 contractor and subcontractors 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 long-term agreement will allow industry the opportunity to place capital investments upfront, which reduces the overall cost and improves the quality of the E-2D Advanced Hawkeye.

Exhibit MYP-1, Multiyear Procurement Criteria

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. Multiyear Procurement Summary:		
	<u>Annual</u>	<u>MultiYear</u>
	Contracts	Contract
Quantity	24	24
Total Contract Price	\$3,925.625	\$3,589.656
Cancellation Ceiling (highest point)		
Funded		\$ 0.000
Unfunded		\$ 0.000
\$ Cost Avoidance Over Annual		\$335.969
% Cost Avoidance Over Annual		8.6%

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-2 Total Program Funding	Plan (NAVY)					te: Septer								
PROCUREMENT					P-	1 Line Iten	n Nomencla	iture - E-2	D Advance	ed Hawkey	e (AHE) M	YP-II (NAV	Y)	1
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
Procurement Quantity		4	4	4	5	7								24
Annual Procurement														
Gross Cost		898.6	920.6	927.3	1087.0	1600.7								5434.1
Less PY Adv Procurement		(102.0)	(93.4)	(94.6)	(120.7)	(168.2)								(578.9
Net Procurement (= P-1)		796.5	827.2	832.7	966.3	1432.4								4855.2
Plus CY Adv Procurement	102.0	93.4	94.6	120.7	168.2									578.9
Weapon System Cost	102.0	890.0	921.8	953.4	1134.5	1432.4								5434.1
Multiyear Procurement														
Gross Cost (P-1)		844.7	860.1	858.7	1012.8	1521.8								5098.2
Less PY Adv Procurement		(102.0)	(126.1)	(160.5)	(209.9)	(264.1)								(862.6
Net Procurement (= P-1)		742.7	734.0	698.3	802.9	1257.7								4235.5
Advance Procurement														
For FY19	102.0													102.0
For FY20		126.1												126.1
For FY21		38.2	122.3											160.
For FY22		38.2	34.0	137.7										209.9
For FY23		38.2	34.0	25.5	166.5									264.
Plus CY Adv Procurement	102.0	240.7	190.2	163.2	166.5									862.0
Weapon System Cost	102.0	983.4	924.2	861.4	969.4	1257.7								5098.2
MultiyearSavings (\$)		(93.5)	(2.4)	92.0	165.1	174.8								336.0
Multiyear Savings (%) (total only)														6.29
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual	17.9	187.4	469.8	746.6	873.2	1029.1	958.5	645.6	234.7	124.2	80.0	45.7	21.5	5434.
Multiyear	17.9	203.7	499.2	761.1	825.0	921.8	846.1	573.1	211.0	110.5	70.0	39.7	18.9	5098.2
Savings		(16.4)	(29.4)	(14.6)	48.2	107.3	112.4	72.5	23.6	13.7	9.9	6.0	2.6	336.0

P-1 Shopping List - Item No 01-0195

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 (NAVY)						mber 2018							
PROCUREMENT					P-	1 Line Iten	n Nomencla	ture - E-2	D Advance	ed Hawkey	e (AHE) M	YP-II (NAV	Y)	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
Procurement Quantity		4	4	4	5	7								24
Annual Procurement														
Gross Cost		636.7	644.4	652.1	832.4	1160.0								3925.6
Less PY Adv Procurement		(102.0)	(93.4)	(94.6)	(120.7)	(168.2)								(578.9
Net Procurement (= P-1)		534.7	551.0	557.6	711.7	991.8								3346.7
Plus CY Adv Procurement	102.0	93.4	94.6	120.7	168.2									578.9
Contract Price	102.0	628.1	645.5	678.2	879.9	991.8								3925.6
Multiyear Procurement														
Gross Cost (P-1)		582.9	583.9	583.6	758.1	1081.2								3589.7
Less PY Adv Procurement		(102.0)	(126.1)	(160.5)	(209.9)	(264.1)								(862.6
Net Procurement (= P-1)		480.8	457.8	423.1	548.3	817.1								2727.0
Advance Procurement														
For FY19	102.0													102.0
For FY20		126.1												126.1
For FY21		38.2	122.3											160.5
For FY22		38.2	34.0	137.7										209.9
For FY23		38.2	34.0	25.5	166.5									264.1
Plus CY Adv Procurement	102.0	240.7	190.2	163.2	166.5									862.6
Contract Price	102.0	721.6	648.0	586.3	714.8	817.1								3589.7
MultiyearSavings (\$)		(93.5)	(2.4)	92.0	165.1	174.8								336.0
Multiyear Savings (%) (total only)														8.69
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual	17.9	141.5	340.3	529.0	631.4	749.7	696.8	457.2	167.1	89.3	57.5	33.0	14.9	3925.6
Multiyear	17.9	157.9	369.7	543.5	583.2	642.4	584.4	384.6	143.5	75.6	47.6	27.1	12.3	3589.7
Savings		(16.4)	(29.4)	(14.6)	48.2	107.2	112.4	72.5	23.6	13.7	9.9	6.0	2.6	336.0

P-1 Shopping List - Item No 01-0195

Numbers may not add due to rounding.

Exhibit MYP-3, Total Contract Funding Plan

(MYP, Page 7 of 8)

ysis (NAVY)	Da	ate: Septer											
				P-	P-1 Line Item Nomenclature - E-2D Advanced Hawkeye (AHE) MYP-II (NAVY)								
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
17.9	141.5	340.3	529.0	631.4	749.7	696.8	457.2	167.1	89.3	57.5	33.0	14.9	3925.6
17.9	138.9	327.4	498.9	583.8	679.5	619.2	398.3	142.8	74.8	47.2	26.6	11.7	3566.8
17.8	138.1	324.9	493.9	576.8	669.8	609.1	390.9	139.8	73.1	46.0	25.9	11.4	3517.5
17.9	157.9	369.7	543.5	583.2	642.4	584.4	384.6	143.5	75.6	47.6	27.1	12.3	3589.7
17.9	154.9	355.6	512.6	539.2	582.3	519.3	335.1	122.6	63.3	39.1	21.8	9.7	3273.2
17.8	154.0	352.9	507.5	532.7	574.0	510.8	328.9	120.0	61.8	38.1	21.2	9.4	3229.3
	(16.4)	(29.4)	(14.6)	48.2	107.2	112.4	72.5	23.6	13.7	9.9	6.0	2.6	336.0
	(16.0)	(28.3)	(13.7)	44.6	97.2	99.9	63.2	20.2	11.5	8.1	4.8	2.1	293.5
	(16.0)	(28.1)	(13.6)	44.0	95.8	98.2	62.0	19.8	11.2	7.9	4.7	2.0	288.2
	(16.4)	(29.4)	(14.6)	48.2	107.2	112.4	72.5	23.6	13.7	9.9	6.0	2.6	336.0
	2018 17.9 17.9 17.8 17.9 17.9	2018 2019 17.9 141.5 17.9 138.9 17.8 138.1 17.9 157.9 17.9 154.9 17.8 154.0 (16.4) (16.0) (16.0)	2018 2019 2020 17.9 141.5 340.3 17.9 138.9 327.4 17.8 138.1 324.9 17.9 157.9 369.7 17.9 154.9 355.6 17.8 154.0 352.9 (16.4) (29.4) (16.0) (28.3) (16.0) (28.1)	2018 2019 2020 2021 17.9 141.5 340.3 529.0 17.9 138.9 327.4 498.9 17.8 138.1 324.9 493.9 17.9 157.9 369.7 543.5 17.9 154.9 355.6 512.6 17.8 154.0 352.9 507.5 (16.4) (29.4) (14.6) (16.0) (28.3) (13.7) (16.0) (28.1) (13.6)	P- 2018 2019 2020 2021 2022 17.9 141.5 340.3 529.0 631.4 17.9 138.9 327.4 498.9 583.8 17.8 138.1 324.9 493.9 576.8 17.9 157.9 369.7 543.5 583.2 17.9 154.9 355.6 512.6 539.2 17.8 154.0 352.9 507.5 532.7 (16.4) (29.4) (14.6) 48.2 (16.0) (28.3) (13.7) 44.6 (16.0) (28.1) (13.6) 44.0	P-1 Line Iten 2018 2019 2020 2021 2022 2023 17.9 141.5 340.3 529.0 631.4 749.7 17.9 138.9 327.4 498.9 583.8 679.5 17.8 138.1 324.9 493.9 576.8 669.8 17.9 157.9 369.7 543.5 583.2 642.4 17.9 154.9 355.6 512.6 539.2 582.3 17.8 154.0 352.9 507.5 532.7 574.0 (16.4) (29.4) (14.6) 48.2 107.2 (16.0) (28.3) (13.7) 44.6 97.2 (16.0) (28.1) (13.6) 44.0 95.8	P-1 Line Item Nomencial 2018 2019 2020 2021 2022 2023 2024 2024 2028 2029 2029 2024 2029 2029 2029 2029 2029	P-1 Line Item Nomenclature - E-2 2018	P-1 Line Item Nomenclature - E-2D Advance 2018 2019 2020 2021 2022 2023 2024 2025 2026 17.9 141.5 340.3 529.0 631.4 749.7 696.8 457.2 167.1 17.9 138.9 327.4 498.9 583.8 679.5 619.2 398.3 142.8 17.8 138.1 324.9 493.9 576.8 669.8 609.1 390.9 139.8 17.8 157.9 369.7 543.5 583.2 642.4 584.4 384.6 143.5 17.9 154.9 355.6 512.6 539.2 582.3 519.3 335.1 122.6 17.8 154.0 352.9 507.5 532.7 574.0 510.8 328.9 120.0 (16.4) (29.4) (14.6) 48.2 107.2 112.4 72.5 23.6 (16.0) (28.3) (13.7) 44.6 97.2 99.9 63.2 20.2 (16.0) (28.1) (13.6) 44.0 95.8 98.2 62.0 19.8	P-1 Line Item Nomenclature - E-2D Advanced Hawkey 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 17.9 141.5 340.3 529.0 631.4 749.7 696.8 457.2 167.1 89.3 17.9 138.9 327.4 498.9 583.8 679.5 619.2 398.3 142.8 74.8 17.8 138.1 324.9 493.9 576.8 669.8 609.1 390.9 139.8 73.1 17.9 157.9 369.7 543.5 583.2 642.4 584.4 384.6 143.5 75.6 17.9 154.9 355.6 512.6 539.2 582.3 519.3 335.1 122.6 63.3 17.8 154.0 352.9 507.5 532.7 574.0 510.8 328.9 120.0 61.8 (16.4) (29.4) (14.6) 48.2 107.2 112.4 72.5 23.6 13.7 (16.0) (28.3) (13.7) 44.6 97.2 99.9 63.2 20.2 11.5 (16.0) (28.1) (13.6) 44.0 95.8 98.2 62.0 19.8 11.2	P-1 Line Item Nomenclature - E-2D Advanced Hawkeye (AHE) MY 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 17.9 141.5 340.3 529.0 631.4 749.7 696.8 457.2 167.1 89.3 57.5 17.9 138.9 327.4 498.9 583.8 679.5 619.2 398.3 142.8 74.8 47.2 17.8 138.1 324.9 493.9 576.8 669.8 609.1 390.9 139.8 73.1 46.0 17.9 157.9 369.7 543.5 583.2 642.4 584.4 384.6 143.5 75.6 47.6 17.9 154.9 355.6 512.6 539.2 582.3 519.3 335.1 122.6 63.3 39.1 17.8 154.0 352.9 507.5 532.7 574.0 510.8 328.9 120.0 61.8 38.1 (16.4) (29.4) (14.6) 48.2 107.2 112.4 72.5 23.6 13.7 9.9 (16.0) (28.3) (13.7) 44.6 97.2 99.9 63.2 20.2 11.5 8.1 (16.0) (28.1) (13.6) 44.0 95.8 98.2 62.0 19.8 11.2 7.9	P-1 Line Item Nomenclature - E-2D Advanced Hawkeye (AHE) MYP-II (NAV 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2029 2028 2029 2029	P-1 Line Item Nomenclature - E-2D Advanced Hawkeye (AHE) MYP-II (NAVY) 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 17.9 141.5 340.3 529.0 631.4 749.7 696.8 457.2 167.1 89.3 57.5 33.0 14.9 17.9 138.9 327.4 498.9 583.8 679.5 619.2 398.3 142.8 74.8 47.2 26.6 11.7 17.8 138.1 324.9 493.9 576.8 669.8 609.1 390.9 139.8 73.1 46.0 25.9 11.4 17.9 157.9 369.7 543.5 583.2 642.4 584.4 384.6 143.5 75.6 47.6 27.1 12.3 17.9 154.9 355.6 512.6 539.2 582.3 519.3 335.1 122.6 63.3 39.1 21.8 9.7 17.8 154.0 352.9 507.5 532.7 574.0 510.8 328.9 120.0 61.8 38.1 21.2 9.4 (16.4) (29.4) (14.6) 48.2 107.2 112.4 72.5 23.6 13.7 9.9 6.0 2.6 (16.0) (28.3) (13.7) 44.6 97.2 99.9 63.2 20.2 11.5 8.1 4.8 2.1 (16.0) (28.1) (13.6) 44.0 95.8 98.2 62.0 19.8 11.2 7.9 4.7 2.0

NOTE: MYP Procurement Period is 13 years. Real Interest Rate for MYP Procurement Period of 13 years is 1.00220000%. (OMB Circular No. A-94, January 2018)

Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis

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Exhibit MYP-1, Multiyear Procurement Criteria		Date: September 2018
Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01)	P-1 Item Nomenclature: F/A-18E/F MYP IV	

1. Multiyear Procurement Description:

This proposed multiyear procurement (MYP IV) covers the purchase of 72 F/A-18E/F aircraft in FY2019 through FY2021 under a single three-year fixed price incentive fee contract. The F/A-18E/F program includes three years of Low Rate Initial Production (LRIP) (FY1997-1999) and 18 years of Full Rate Production (FRP). This MYP strategy has been structured to achieve significant savings (\$380.811M) from the Single Year Procurement (SYP) while providing quantity flexibility for emergent requirements.

This MYP employs \$135.929M economic order quantity (EOQ) funding in the program years FY18-FY20 in support of a FY19-FY21 MYP.

2. Benefit to the Government:

a. Substantial Savings:

Implementation of this proposed MYP will yield a significant savings through the terms of the contract. Specifically, total savings for FY2019-FY2021 attributable to this multiyear strategy are \$380.811M.

In addition to the cost avoidance generated through these investments and initiatives, procuring at a guaranteed rate of minimum production will also yield cost avoidances/savings. Allowing the contractor to manage Facilities and Subcontractors to a guaranteed production rate will reduce costs by allowing them to engage in activities including, but not limited to, reducing the number of production set-ups, reducing administrative costs, and receiving price breaks for raw materials and components.

Reducing the number of set-ups can provide a significant cost avoidance/savings when producing components or materials with high set-up to run ratios and the dollar value of the component is low. Sheet metal procurement and low value castings and forgings are examples of areas in which lower prices can be negotiated with suppliers based on reduced set-up costs associated with larger quantity procurements.

Administrative costs are reduced because there is only one proposal, negotiation, and purchase order vice three separate SYP actions. These costs are reduced at the prime contractor level, since they have only one contract to negotiate with the government instead of five. Prime contractor costs will also be reduced at the subcontract level, since all tiers will only need to be entered into one time. 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 avoidances will not get lost in the overhead rates. Another administrative reduction is realized in production planning. Cost avoidances/savings will be gained because production line administrative processes will be performed only once, rather than three times under a SYP strategy.

A Variation In Quantity (VIQ) clause will be employed for potential upward adjustments to quantity; adjustment amount is TBD pending contract negotiations.

Many electronics components have minimum buy quantities, which may not be met under a SYP, driving up unit costs and total cost. MYP quantities will allow the prime contractor and subcontractors at all tiers to exceed minimum order quantities and capture the cost avoidance on these components. Typically suppliers will provide price discounts to lock in business. Given this three-year contract, suppliers will have a larger total business base and therefore greater stability. Suppliers will be capable of finding 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

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01) P-1 Item Nomenclature: F/A-18E/F MYP IV

of price reductions. In addition to these types of process innovations and capital investments, subcontractor competition is expected to be greater based on larger purchase volumes.

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.

b. Stability of Requirement:

The requirement for the F/A-18E/F has been consistently validated, supporting the first, second, and third multi-year procurements of 604 aircraft through the end of FY13. The 2014 Quadrennial Defense Review (QDR) recommended 11 aircraft carriers and 10 aircraft wings. Currently these aircraft wings are comprised of F/A-18 E/F aircraft and therefore the requirement for an additional 110 aircraft remains valid.

c. Stability of Funding:

The Navy has demonstrated its commitment to a stable funding stream for the F/A-18E/F multiyear by fully funding the requirement. This commitment was reaffirmed by top level Navy leadership through its support in the final budget submission. Funding support for the FA-18E/F has consisently been demonstrated by both the Navy and the Congress through implementation of three previous MYP contracts and ongoing support leading to MYP IV.

Defense Planning Guidance (DPG) emphasizes the criticality of the F/A-18E/F to overall DoD aviation planning and demonstrates the Department's commitment to properly fund this weapon system to the quantities proposed in the multiyear plan.

d. Stable Configuration:

As of September 2017, F/A-18E/F Super Hornet aircraft have flown over 1.7M hours. The F/A-18E/F program continues to remain on cost and on schedule . To date, 501

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria

Date:

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FRP aircraft deliveries have been completed in accordance with or prior to the contract delivery schedule. This brings the total deliveries to 570 aircraft, of which 561 were production (62 LRIP) and seven were Engineering and Manufacturing Demonstration (EMD) aircraft.

e. Realistic Cost Estimate:

The Current cost estimate is realistic and is based on historical cost data/actuals for 18 production lots of aircraft, as well as a series of data/information provided by the contractor during negotiations for Lots 39-41 (2015-2017). Secretary of Defense Office of Cost Assessment and Program Evaluation is currently evaluating the potential MYP savings.

f. National Security:

The Quadrennial Defense Review and Defense Planning Guidance emphasize the criticality of the F/A-18E/F 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 F/A-18E/F provides the armed forces and national leaders with a credible carrier-based fighter aircraft capable of worldwide self-deployability, which allows for the continued execution of global military commitments.

The National Security implications are two-fold; the first is maintaining the industrial base for carrier-launched aircraft, the second is providing a credible fleet asset until the procurement of the F-35 Joint Strike Fighter (JSF) is in sufficient quantities. Until the Joint Strike Fighter is fully fielded, the F/A-18E/F remains the Navy's mainstay fighter aircraft.

3. Source of Savings:

	\$ in Millions
Inflation	\$15.232
Vendor Procurement	\$121.741
Manufacturing	\$118.052
Design/Engineering	\$114.362
Tool Design	\$0.000
Support Equipment	\$0.000
Other	\$11.424
Workload Savings	\$0.000
Total	\$380.811

4. Advantages of the MYP:

This MYP strategy has been structured to achieve substantial savings (\$380.811M) and will eliminate the need to develop an annual plan on a yearly basis; one year of planning will replace three independent years of planning. Savings from economic order quantities, manufacturing initiatives, and yearly planning will result in significant benefit to industry

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-1, Multiyear Procurement Criteria Appropriation / Budget Activity: 1506 Aircraft Procurement - Navy / Combat Aircraft (BA-01) P-1 Item Nomenclature: F/A-18E/F MYP IV

and the Government.

Implementation of this proposed MYP will yield significant savings through the terms of the contract. Specifically, total savings for FY2019 - FY2021 attributable to this multiyear strategy are \$380.811M.

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 F/A-18E/F.

6. Multiyear Procurement Summary:

	<u>Annual</u> <u>Contracts</u>	<u>MultiYear</u> <u>Contract</u>
Quantity	72	72
Total Contract Price	\$4,155.737	\$3,774.926
Cancellation Ceiling (highest point)		
Funded		\$ 0.000
Unfunded		\$ 0.000
\$ Cost Avoidance Over Annual		\$380.811
% Cost Avoidance Over Annual		9.2%

Exhibit MYP-1, Multiyear Procurement Criteria

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Exhibit MYP-2 Total Program Funding Plan (NAVY)						Date: September 2018								
PROCUREMENT					P-1 Line Ite	em Nomencla	ature - F/A-1	8E/F MYP I	V (NAVY)					
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL		
Procurement Quantity		24	24	24								72		
Annual Procurement														
Gross Cost		2115.3	2056.6	2077.2								6249.1		
Less PY Adv Procurement		(57.7)	(64.1)	(68.1)								(190.0)		
Net Procurement (= P-1)		2057.5	1992.5	2009.1								6059.1		
Plus CY Adv Procurement	57.7	64.1	68.1									190.0		
Weapon System Cost	57.7	2121.6	2060.6	2009.1								6249.1		
Multiyear Procurement														
Gross Cost (P-1)		1990.5	1929.7	1948.1								5868.2		
Less PY Adv Procurement		(53.0)	(58.8)	(62.5)								(174.3)		
Net Procurement (= P-1)		1937.6	1870.9	1885.6								5694.0		
Advance Procurement														
For FY19	53.0											53.0		
For FY20		58.8										58.8		
For FY21			62.5									62.5		
Plus CY Adv Procurement	53.0	58.8	62.5									174.3		
Weapon System Cost	53.0	1996.4	1933.4	1885.6								5868.2		
MultiyearSavings (\$)	4.8	125.3	127.2	123.5								380.8		
Multiyear Savings (%) (total only)												6.1%		
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual	8.1	314.9	964.7	1605.9	1539.1	976.8	388.3	185.8	143.9	81.4	40.2	6249.1		
Multiyear	7.4	295.9	906.5	1508.5	1444.9	916.8	364.6	174.4	135.2	76.4	37.7	5868.2		
Savings	0.7	19.0	58.2	97.4	94.2	60.0	23.8	11.4	8.8	5.0	2.5	380.8		

P-1 Shopping List - Item No 01-0145

Numbers may not add due to rounding.

Exhibit MYP-2, Total Program Funding Plan

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Exhibit MYP-3 Total Contract Funding P		Date: September 2018										
PROCUREMENT					P-1 Line Ite	m Nomencl	ature - F/A-1	18E/F MYP I	V (NAVY)			
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
Procurement Quantity		24	24	24								72
Annual Procurement												
Gross Cost		1361.3	1385.0	1409.4								4155.7
Less PY Adv Procurement		(46.1)	(51.2)	(54.4)								(151.6)
Net Procurement (= P-1)		1315.2	1333.9	1355.0								4004.1
Plus CY Adv Procurement	46.1	51.2	54.4									151.6
Contract Price	46.1	1366.4	1388.2	1355.0								4155.7
Multiyear Procurement												
Gross Cost (P-1)		1236.6	1258.1	1280.3								3774.9
Less PY Adv Procurement		(41.3)	(45.9)	(48.7)								(135.9)
Net Procurement (= P-1)		1195.3	1212.2	1231.5								3639.0
Advance Procurement												
For FY19	41.3											41.3
For FY20		45.9										45.9
For FY21			48.7									48.7
Plus CY Adv Procurement	41.3	45.9	48.7									135.9
Contract Price	41.3	1241.1	1261.0	1231.5								3774.9
MultiyearSavings (\$)	4.8	125.3	127.2	123.5								380.8
Multiyear Savings (%) (total only)												9.2%
Cancellation Ceiling, Funded												
Cancellation Ceiling, Unfunded												
OUTLAYS												
Annual	6.5	205.6	632.7	1062.8	1030.1	656.2	260.0	124.1	95.7	54.9	27.1	4155.7
Multiyear	5.8	186.6	574.5	965.4	935.9	596.3	236.3	112.7	87.0	49.9	24.6	3774.9
Savings	0.7	19.0	58.2	97.4	94.2	60.0	23.8	11.4	8.8	5.0	2.5	380.8

P-1 Shopping List - Item No 01-0145

Numbers may not add due to rounding.

Exhibit MYP-3, Total Contract Funding Plan

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Exhibit MYP-4 Present Value Analysis (NAVY)					Date: September 2018 P-1 Line Item Nomenclature - F/A-18E/F MYP IV (NAVY)							
PROCUREMENT												
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
Annual Proposal												
Then Year Cost	6.5	205.6	632.7	1062.8	1030.1	656.2	260.0	124.1	95.7	54.9	27.1	4155.7
Constant Year Cost	6.5	201.7	608.6	1002.3	952.4	594.8	231.1	108.1	81.8	45.9	22.2	3855.4
Present Value	6.4	201.0	605.6	996.0	945.1	589.4	228.7	106.8	80.7	45.3	21.9	3826.9
Multiyear Proposal												
Then Year Cost	5.8	186.6	574.5	965.4	935.9	596.3	236.3	112.7	87.0	49.9	24.6	3774.9
Constant Year Cost	5.8	183.0	552.6	910.4	865.3	540.5	210.0	98.2	74.3	41.7	20.2	3502.0
Present Value	5.8	182.4	549.9	904.7	858.6	535.6	207.8	97.1	73.3	41.1	19.9	3476.2
Difference												
Then Year Cost	0.7	19.0	58.2	97.4	94.2	60.0	23.8	11.4	8.8	5.0	2.5	380.8
Constant Year Cost	0.7	18.7	56.0	91.9	87.1	54.3	21.1	9.9	7.5	4.2	2.0	353.3
Present Value	0.7	18.6	55.7	91.3	86.5	53.8	20.9	9.8	7.4	4.1	2.0	350.7
Multiyear Savings (\$)	0.7	19.0	58.2	97.4	94.2	60.0	23.8	11.4	8.8	5.0	2.5	380.8
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NOTE: MYP Procurement Period is 11 years. Real Interest Rate for MYP Procurement Period of 11 years is 1.00140000%. (OMB Circular No. A-94, January 2018)

Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis

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