Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy	Date: March 2019
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 0602750N *I (U)Future Naval Capabilities Applied Research*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	147.219	137.701	154.755	-	154.755	167.590	180.900	184.622	188.333	Continuing	Continuing
0000: *(U)Future Naval Capabilities Applied Research*	0.000	147.219	137.701	154.755	-	154.755	167.590	180.900	184.622	188.333	Continuing	Continuing

A. Mission Description and Budget Item Justification

The efforts described in this Program Element (PE) address the Applied Research associated with the Future Naval Capabilities (FNC) Program. The objective of the work in this PE is to develop and mature technologies needed by the Navy and Marine Corps to initiate FNCs in PE 0603673N Future Naval Capabilities Advanced Technology Development that can be commenced at higher Technology Readiness Levels (TRLs). The FNC Program was restructured for FY 2019 to accelerate transition to the Fleet and Force. This restructuring involved a zero based review of all ongoing FNC projects where each effort was assessed for its technology maturity and transition commitment. Ongoing efforts were categorized as FNCs or Technology Candidates. Some efforts were terminated and others were accelerated to achieve the goals of the restructured program. Funding for FNCs, which have higher Technology Readiness Levels (TRLs of 4/5 to 6) and transition funding commitments, is being resourced in PE 0603673N Future Naval Capabilities Advanced Technology Development. Funding for technology candidates at lower TRLs (3 to 4) is being resourced in this PE. The Office of Naval Research (ONR) is working closely across the Department of the Navy (DON) and Naval Research Enterprise (NRE) to develop high priority technological capabilities needed by the operational forces.

Due to the number of efforts in this PE, the programs described herein are representative of the work included in this PE.

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	156.805	147.771	155.625	-	155.625
Current President's Budget	147.219	137.701	154.755	-	154.755
Total Adjustments	-9.586	-10.070	-0.870	-	-0.870
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-10.070			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.616	0.000			
• Rate/Misc Adjustments	-0.001	0.000	-0.870	-	-0.870
• Congressional Directed Reductions Adjustments	-6.969	-	-	-	-

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Change Summary Explanation

The increase in FY 2020 is due to increases in Technology Candidate development in Electromagnetic Maneuver Warfare and Combating Terrorism, Ocean Battlespace Sensing, Sea Warfare and Weapons, Warfighter Performance, and Naval Warfare and Weapons as discussed in the individual FY 2020 Plans and increase/decrease statements of each of these R-2 Activity sections.

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity 1319 / 2	R-1 Program Element (Number/Name) PE 0602750N / *(U)Future Naval Capabilities Applied Research*	Project (Number/Name) 0000 / *(U)Future Naval Capabilities Applied Research*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
0000: *(U)Future Naval Capabilities Applied Research*	0.000	147.219	137.701	154.755	-	154.755	167.590	180.900	184.622	188.333	Continuing	Continuing

A. Mission Description and Budget Item Justification

Prior to FY 2019, the underlying Future Naval Capabilities (FNC) Program investments in this program element (PE) were aligned to specific FNC projects. Future budget activity (BA) 2 investments supporting candidate FNC technologies are being developed in order to increase agility, exploit technology advances, and respond quickly to naval needs. This approach facilitates an optimum response when developing and maturing the technology options that will be developed further in PE 0603673N, Future Naval Capabilities Advanced Technology Development.

The FNC Program has been fully restructured for FY 2019 in favor of a more direct and higher level of collaboration, PE R-2 activities are now organized by the Office of Naval Research (ONR) Departments, which are tasked to collaborate with the acquisition stakeholders and their resource sponsors. A complete accounting of the technology candidates being developed and a full disposition of each technology development effort funded in this PE will be provided separately to the Congressional oversight committees.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: CAPABLE MANPOWER (CMP) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A	8.158	0.000	0.000	0.000	0.000
Title: ENTERPRISE AND PLATFORM ENABLERS (EPE) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:***	13.469	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A					
Title: FNC MANAGEMENT ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A	7.915	0.000	0.000	0.000	0.000
Title: FORCE HEALTH PROTECTION (FHP) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A	4.233	0.000	0.000	0.000	0.000
Title: FORCENET (FNT) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program.	40.645	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
FY 2019 Plans: N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A					
Title: POWER AND ENERGY (P&E) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A	10.845	0.000	0.000	0.000	0.000
Title: SEA SHIELD (SHD) ***Description:*** The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A	34.125	0.000	0.000	0.000	0.000
Title: SEA STRIKE (STK)	27.829	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Description: The investments that would have continued in this R-2 Activity have been moved into the activities of the restructed FNC Program. ***FY 2019 Plans:*** N/A ***FY 2020 Base Plans:*** N/A ***FY 2020 OCO Plans:*** N/A					
Title: ELECTROMAGNETIC MANEUVER WARFARE (EMW) AND COMBATING TERRORISM ***Description:*** The objective of this activity, new for FY 2019, is to develop and mature technologies in asymmetric and irregular warfare, distributed operations, information dominance, survivability and self-defense to a point where they can be proposed and continued as Future Naval Capabilities (FNC) in program element (PE) 0603673N, Future Naval Capabilities Advanced Technology Development. ***FY 2019 Plans:*** The technologies pursued under this activity include investments that: improve warfighter effectiveness in command, control, computers and communication for small unit naval expeditionary warfighters; enhance fires capabilities so warfighters employed in small, distributed units will have the tools they need to locate and decisively destroy larger enemy forces; improve force protection for small units and individual warfighters against a myriad of enemy attack modes; improve human performance by developing new training technologies, knowledge products, architectures, and systems that can accelerate mental, emotional and cognitive decision-making skill; mature emerging technologies for future intelligence, surveillance and reconnaissance systems; develop and mature new maintenance technologies for expeditionary combat systems; develop new expeditionary energy technologies that support distributed operations from the individual Marine to small units; develop novel technologies and innovative concepts that will improve the maneuverability of the Marine Corps Air Ground Task Force by enhancing the movement of troops and equipment from shipboard to inland objectives; and mature new technologies that will improve the standoff detection and neutralization of improvised explosive devices. ***FY 2020 Base Plans:***	0.000	6.639	11.723	0.000	11.723

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Future Naval Capabilities (FNC) Technology Candidate development in FY 2020 will continue to focus on the technologies noted in the FY 2019 plans. Investments include technologies that: improve warfighter effectiveness in command, control, computers and communication for small unit naval expeditionary warfighters; enhance fires capabilities so warfighters employed in small, distributed units will have the tools they need to locate and decisively destroy larger enemy forces; improve force protection for small units and individual warfighters against a myriad of enemy attack modes; improve human performance by developing new training technologies, knowledge products, architectures, and systems that can accelerate mental, emotional and cognitive decision-making skill; mature emerging technologies for future intelligence, surveillance and reconnaissance systems; develop and mature new maintenance technologies for expeditionary combat systems; develop new expeditionary energy technologies that support distributed operations from the individual Marine to small units; develop novel technologies and innovative concepts that will improve the maneuverability of the Marine Corps Air Ground Task Force by enhancing the movement of troops and equipment from shipboard to inland objectives; and mature new technologies that will improve the standoff detection and neutralization of improvised explosive devices. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase of funds from FY 2019 to FY 2020 is due to naval priorities necessitating an increased investment in technology options for future expeditionary maneuver warfare and combating terrorism Future Naval Capabilities (FNCs). Specific efforts include autonomous and communication technologies that support the last tactical mile for Marine Corps operations as well as artificial intelligence that improve targeting and fire support coordination. A complete accounting of the technologies being developed and a full disposition of each technology development effort will be provided separately to the Congressional oversight committees.					
Title: C4ISR AND SPECIAL PROJECTS ***Description:*** The objective of this activity is to develop and mature technologies in data science, mathematical optimization, computational and information sciences, quantum information sciences, electronics, command and control and combat systems, communications, cyber security, cyber operations, electronic warfare, sensing and surveillance, and precision timing and navigation, as well as technologies for surface and airborne vehicles, and cruise missile defense weapons to a point where they can be proposed and continued as Future Naval Capabilities (FNC) in program element (PE) 0603673N, Future Naval Capabilities Advanced Technology Development.	0.000	67.086	55.720	0.000	55.720

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
FY 2019 Plans: The technologies pursued under this activity include investments that: advance techniques and algorithms for information processing and integration, information operations, information assurance, cyber protection, communications and networking, computational decision-making, accurate decision making, and command and control technologies with a specific focus on enabling rapid; exploit advancements in electronics, sensors and network technologies enabling new and innovative uses of the electromagnetic spectrum in areas of surface and aerospace surveillance, communications, electronic combat, and precision time and navigation; improve adaptive persistent surveillance capabilities; develop new digital radio frequency technologies supporting active aperture, phased arrays capable of performing multiple functions simultaneously; improve soft-kill performance and real-time assessment, as well as provide multiple means to detect and measure incoming threats. ***FY 2020 Base Plans:*** Future Naval Capabilities (FNC) Technology Candidate development in FY 2020 will continue to focus on technologies noted in the FY 2019 plans section above. Investments include technologies that: advance techniques and algorithms for information processing and integration, information operations, information assurance, cyber protection, communications and networking, computational decision-making, accurate decision making, and command and control technologies with a specific focus on enabling rapid; exploit advancements in electronics, sensors and network technologies enabling new and innovative uses of the electromagnetic spectrum in areas of surface and aerospace surveillance, communications, electronic combat, and precision time and navigation; improve adaptive persistent surveillance capabilities; develop new digital radio frequency technologies supporting active aperture, phased arrays capable of performing multiple functions simultaneously; improve soft-kill performance and real-time assessment, as well as provide multiple means to detect and measure incoming threats. FY20 investments focuses on the following areas: communications and networking; decision tools; cyber; sensor deception and defeat; advanced sensing, counter ISR and processing; cross platform technologies; and advanced systems and components. The objectives of communications and networking include maturing promising communications and networking technologies and enable rapid transition to the fleet. The objectives of sensor deception and defeat include maturing the underlying technologies, techniques and algorithms that degrade, neutralize, or destroy an adversary's combat capability. The objectives of decision tools include dedicating applied research to develop decision tools to allow Commanders to rapidly and confidently move from data-to-options-to-informed decisions. The objectives of cyber include maturing innovative cyber approaches to					

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
enhance resilience, safety, reliability, and efficiency of cyber systems in warfighting platforms. The objectives of advanced sensing and processing thrust is to maturing sensing system and processing technologies to deliver enhanced operational capabilities for Intelligence, Surveillance, Reconnaissance and Targeting applications. The objectives of cross platform technologies include maturing electro-magnetic enabling technologies that rely on geographic separation of platform sensors to deliver enhanced operational capabilities. The objectives of advanced systems and components include maturing the underlying components and systems for improved electro optical (EO), radio frequency (RF) and Precision, Navigation, and Timing (PNT) systems. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The decrease from FY 2019 to FY 2020 is due to higher naval priorities that led to a realignment of technology candidates across PE (program element) 0602750N, Future Naval Capabilities Applied Research, R-2 Activities.					
Title: OCEAN BATTLESPACE SENSING ***Description:*** The objective of this activity, new for FY 2019, is to develop and mature technologies for antisubmarine warfare, mine warfare and mine countermeasures, and environmental sensing and prediction for the ocean battlespace from sub-seafloor to space to a point where they can be proposed and continued as Future Naval Capabilities (FNC) in program element (PE) 0603673N, Future Naval Capabilities Advanced Technology Development. ***FY 2019 Plans:*** The technologies being pursued under this activity include investments that: improve the detection and neutralization of mines in both the ocean and littoral environment; exploit advancements in maritime sensing, ocean engineering, marine systems, and undersea signal processing, and improve our understanding of the environment and the limits of predictability by maturing technologies in fields ranging from the littoral geosciences to high latitude dynamics. ***FY 2020 Base Plans:*** Future Naval Capabilities (FNC) Technology Candidate development in FY 2020 will continue technologies noted in the FY 2019 plans with a primary focus on improving the ability to exploit environmental sensing,	0.000	20.399	24.476	0.000	24.476

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
modeling and prediction to enable more effective anti-submarine warfare (ASW) and mine warfare (MIW) applications. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase from FY 2019 to FY 2020 was due to naval priorities necessitating an increased investment in technology candidates for future FNCs (Future Naval Capabilities) that leverage advances in Ocean Battlespace Sensing specifically for next generation anti-submarine warfare (ASW) and mine warfare (MIW) sensors, models, and mission planning capabilities. A complete accounting of the technologies being developed and a full disposition of each technology development effort will be provided separately to the Congressional oversight committees.					
Title: SEA WARFARE AND WEAPONS ***Description:*** The objective of this activity, new for FY 2019, is to develop and mature technologies that enable superior warfighting capabilities for surface and sub-surface naval platforms and undersea weaponry to a point where they can be proposed and continued as Future Naval Capabilities in program element (PE) 0603673N, Future Naval Capabilities Advanced Technology Development. ***FY 2019 Plans:*** The technologies being pursued under this activity include investments that: reduce the total life cycle cost of naval platforms and minimize the energy footprint of naval forces by exploiting advancements in hydrodynamics, survivability, electrical and thermal systems, platform structures and autonomy for unmanned surface vehicles; develop new functional and structural materials, materials processing and systems to fulfil the unique requirements of marine and military applications; develop concepts and technologies which enable flexible resilient logistics and maintenance: develop new guidance, control, autonomy, sensors, signal processing, undersea distributed network, energy conversion, propulsion and vehicle technologies that improve the capabilities of sea weapons; improve protection against corrosion and anti-fouling coatings; develop new battery, fuel cell, liquid and solid fuels, and motors for weapons and autonomous vehicles; exploit renewable energy resources and energy efficiency technologies for sea warfare; develop concepts and technologies which enable flexible resilient logistics; develop improved and new acoustic sensors, and related processing and autonomy	0.000	16.738	25.104	0.000	25.104

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
algorithms, to support long-range undersea weapons; and develop primary battery technology for long-range undersea weapons. ***FY 2020 Base Plans:*** The focus in FY 2020 will be on maturing technologies for future FNCs (Future Naval Capabilities) involving off-board refueling and data transfer, autonomous situational awareness, hazard avoidance, and high temperature superconducting magnetic influence sweep payloads for unmanned surface vehicles; advanced batteries to increase torpedo range and endurance; robust power control for integrated surface ship power and combat systems; precision lift in austere at-sea environments for surface ship replenishment and weapons reload; digital tools to automate operation and control of unmanned platforms integrated with manned platforms in mission environments; and in situ repair of shipboard copper-nickel heat exchanger tubing. Additionally, applied research will begin on emerging technologies in the areas of autonomy, digital analytics for platforms and logistics, platform maintenance and sustainability, undersea weapons, advanced manufacturing, and energy systems. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase from FY 2019 to FY 2020 is due to naval priorities in Sea Warfare and Weapons necessitating an increased investment in advance mine-counter-measure technologies for unmanned vehicles and artificial intelligence that improves situational awareness and hazard avoidance for autonomous platforms. A complete accounting of the technologies being developed and a full disposition of each technology development effort will be provided separately to the Congressional oversight committees.					
Title: WARFIGHTER PERFORMANCE ***Description:*** The objective of this activity, new in FY 2019, is to develop and mature technologies that enhance Naval warfighting effectiveness and efficiency within the broad array of Warfighter Performance science and technology domains (Undersea Medicine, Biological Sciences, Biorobotics, Capable Manpower, Command Decision Making, Force Health Protection, Human Robot Interaction, Noise-Induced Hearing Loss, and Training and Simulation) to a point where they can be proposed and continued as Future Naval Capabilities (FNC) in program element (PE) 0603673N, Future Naval Capabilities Advanced Technology Development. ***FY 2019 Plans:***	0.000	8.115	12.710	0.000	12.710

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy		Date: March 2019
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
The technologies being pursued under this activity include investments that: mature computational, neuroscience, bioscience, bio-mimetic, social/organizational, training, human factors, and decision making technologies to improve warfighter performance and decision making in all environments; exploit advancements in biomaterials, biomedical technologies, expeditionary and undersea medicine, physiology and biophysics, and immunology to increase the survival of casualties through intermediate, life-saving treatments and stabilization techniques and to prevent personnel injuries caused by the stresses of demanding Naval occupations and environments; and develop new manpower, personnel, training, and education technologies that prepare sailors and Marines to fight and win in an information rich, distributed battlespace, get the right warfighters into the right job at the right time with the right tools, and provide a 21st century learning environment designed to deliver the right training. ***FY 2020 Base Plans:*** Technologies developed under this activity enhance Naval operators use of: Autonomy, Artificial Intelligence, and Robotics (AAR), including cross-domain facilitated communication between operators and unmanned vehicles; Communications and Networking/Cyber (CN/C) technologies such as expeditionary command, control, communications, intelligence, surveillance, and reconnaissance (C4ISR); Advanced Analytics and Decision Making (AADM) capabilities including Naval training tools and decision-assist technologies for denied and degraded environments; Manpower, Performance, Protection, and Medical support (MPPM) capabilities such as directed energy bioeffects, monitoring performance in austere environments, and predictors of blast injury. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase from FY 2019 to FY 2020 in Warfighter Performance technologies is due to naval priorities necessitating an increased investment for future FNCs (Future Naval Capabilities) that leverage advances in human-machine integration, communications, predictive and preventive techniques for Naval force health protection; and training technologies for Fleet/Force. A complete accounting of the technologies being developed and a full disposition of each technology development effort will be provided separately to the Congressional oversight committees.					
Title: NAVAL AIR WARFARE AND WEAPONS	0.000	18.724	25.022	0.000	25.022
Description: The objective of this activity, new for FY 2019, is to develop and mature technologies in directed energy, energetic materials, autonomy, electromagnetic launch, and high speed conventional air and surface					

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
weapons to a point where they can be proposed and continued as Future Naval Capabilities in PE 0603673N, Future Naval Capabilities Advanced Technology Development. ***FY 2019 Plans:*** The technologies being pursued under this activity include investments that: enhance the offensive and defensive capabilities of tactical missiles and missile systems by developing and maturing new technologies in the areas of high threat time-critical strike, countermeasures to advanced seekers and hostile fire, air vehicle performance, air platform survivability, total ownership cost, operational availability, hypersonic missile defense, naval fires, non-kinetic warfare, unmanned naval aviation, warhead and propulsion energetics and design, navigation, autonomy, airframes, power and energy, propulsion design, sensors, seekers, targeting, directed energy, collaborative operations, advanced manufacturing and maintenance reduction. ***FY 2020 Base Plans:*** The focus of FY2020 will be on maturing technologies for future FNCs that will improve kinetic and non-kinetic capabilities of existing and future naval weapon systems, as well as introduce technological advancements into core Naval operations. Technology investments will be made to introduce artificial intelligence and machine learning into mission planning, make generational enhancements to rocket motor propulsion, investigate sub-system advancement for hypersonic weapons, mature directed energy applications for defense, expand aircraft and ship self-defense capabilities, create alternate aircraft repair methodologies, and improve aircraft-ship interoperability. ***FY 2020 OCO Plans:*** N/A ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase in Naval Air Warfare and Weapons technologies from FY 2019 to FY 2020 is due to naval priorities necessitating an increased investment in technologies for greater insertion and utilization of artificial intelligence and machine learning into Naval operations; investigation into new means for increased availability and sustainability and reduced life cycle cost of capital investments in Naval aircraft; and acceleration of subsystem development for hypersonic weapons and defense.					
Accomplishments/Planned Programs Subtotals	147.219	137.701	154.755	0.000	154.755

C. Other Program Funding Summary ($ in Millions)

N/A

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C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

The performance metric for this program element (PE) and the research thrusts it funds can be measured by the number of successful Future Naval Capabilities (FNCs) that are able to be proposed and selected in the FNC budget activity (BA) 3 PE 0603673N, Future Naval Capabilities Advanced Tech Development.