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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: FY 2018 Navy</b>	<b>Date: May 2017</b>
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<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 6: RDT&amp;E Management Support</i>					<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	0.000	351.469	413.446	373.667	-	373.667	375.362	388.518	393.918	401.556	Continuing	Continuing
0541: <i>AUTEC</i>	0.000	51.125	52.556	55.439	-	55.439	53.572	55.416	56.295	57.302	Continuing	Continuing
0566: <i>NAVAIR Environmental Compliance</i>	0.000	4.249	4.219	4.382	-	4.382	4.459	4.605	4.698	4.792	Continuing	Continuing
0653: <i>NAWC Weapons Division</i>	0.000	141.856	135.521	140.001	-	140.001	142.958	147.660	150.612	153.600	Continuing	Continuing
0654: <i>NAWC Acft Division</i>	0.000	97.645	94.556	96.653	-	96.653	98.322	101.605	103.632	105.684	Continuing	Continuing
2921: <i>Pacific Missile Range Facility</i>	0.000	5.316	5.179	5.385	-	5.385	5.484	5.665	5.778	5.894	Continuing	Continuing
2922: <i>MRTFB Maint &amp; Repair</i>	0.000	39.583	96.034	44.378	-	44.378	45.704	41.756	44.229	45.068	Continuing	Continuing
3154: <i>Nanoose and Dabob Bay Ranges</i>	0.000	11.695	11.421	11.556	-	11.556	11.771	12.171	12.418	12.671	Continuing	Continuing
3386: <i>MRTFB Marine Vessels</i>	0.000	0.000	13.960	15.873	-	15.873	13.092	19.640	16.256	16.545	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RESEARCH, DEVELOPMENT, TEST and EVALUATION MANAGEMENT SUPPORT because it supports efforts directed toward sustaining or modernizing installations or operations required for general research, development, test and evaluation.

This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center (NUWC) Detachment Atlantic Undersea Test and Evaluation Center (AUTEC), Andros Island, Bahamas; the Environmental Compliance Program; Naval Air Warfare Center Weapons Division (NAWCWD), Point Mugu and China Lake, CA; Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, MD; Test and Evaluation (T&E) related capabilities at the Pacific Missile Range Facility (PMRF), Barking Sands, HI; Maintenance and Repair at NAWCWD, NAWCAD, and AUTEC; and the NUWC Keyport Nanoose and Dabob Bay Ranges. Project Unit 3386, Major Range and Test Facility Base (MRTFB) Marine Vessels, is a new start FY17 program which will provide the overhauls and preventative maintenance of the 23 MRTFB marine vessels located at NAWCWD, Point Mugu, CA, PMRF, Honolulu, HI, NUWC Keyport Nanoose and Dabob Bay Ranges, Keyport, WA, NAWCAD, Patuxent River, MD, and NUWC Detachment (AUTEC). The T&E activities make up the Navy portion of the Department of Defense's MRTFB. These activities are chartered to perform T&E for the development and acquisition of technology advanced weapons systems. Core T&E capabilities and capacity are operated to obtain weapons system performance documentation for acquisition program milestone decisions to provide operational forces with effective weapons systems. This program provides Navy Acquisition Program Managers required test capabilities; lowers cost of T&E; removes cost and scheduling impact of providing their own T&E resources; and retains the physical airspace, land space and sea space needed to conduct testing.

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
1319: Research, Development, Test & Evaluation, Navy / BA 6: RDT&E Management Support		PE 0605864N / Test & Evaluation Support			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	351.912	349.146	361.446	-	361.446
Current President's Budget	351.469	413.446	373.667	-	373.667
Total Adjustments	-0.443	64.300	12.221	-	12.221
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.445	0.000			
• Program Adjustments	0.000	64.300	12.242	-	12.242
• Rate/Misc Adjustments	0.002	0.000	-0.021	-	-0.021
<b>Change Summary Explanation</b>					
The FY 2018 funding increase supports a comprehensive life extension and repair of the MRTFB hangars, projects to improve security at AUTC, and sustainment of six new advanced high fidelity threat emitters at NAWC-WD.					
Technical: Not applicable.					
Schedule: Not applicable.					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / <i>Test &amp; Evaluation Support</i>				Project (Number/Name) 0541 / <i>AUTEC</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
0541: <i>AUTEC</i>	0.000	51.125	52.556	55.439	-	55.439	53.572	55.416	56.295	57.302	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

As a detachment of Naval Undersea Warfare Center, Division Newport, the mission of the Atlantic Undersea Test and Evaluation Center (AUTEC) is to provide the US Navy an underwater range facility for full-spectrum test and evaluation of Undersea Warfare systems and for Fleet training and readiness assessment. The AUTEC Program Office is headquartered at Newport, RI. AUTEC's administrative offices are located at West Palm Beach, Florida. Test facilities are located at Andros Island, Sites 1 through 4, and the Berry Islands in the Bahamas. AUTEC aircraft make scheduled daily flights between West Palm Beach and Andros Town Airport.

AUTEC manages and, under service contract, maintains and operates a 500 square nautical miles deep-water and a 100 square nautical miles shallow-water range; air-target tracking capabilities; sonobuoy simulation systems; electronic warfare threat simulation systems; rotary wing aircraft; aircraft ground support facilities; acoustic targets; torpedo retrieval and flushing capabilities; open-ocean range craft; marine support facilities; and data processing and analysis capabilities.

Major test facilities on Andros Island are located at Site 1. The Command Control Building houses the range tracking displays and replay centers, the computer center, operations support functions, communications center, and the central timing system. The Range Support Facility houses a torpedo post-run workshop, Mark 46 /Mark 50 lightweight torpedo Intermediate Maintenance Activity (IMA), a Mark 30 undersea target IMA, a Mark 48 heavyweight torpedo Research and Development Turnaround facility and related technical facilities. The complex includes electrical and physical calibration labs, a complete electronics maintenance shop, a dive locker, a precision machine shop, and logistics support areas.

AUTEC has a 285-foot concrete pier with a controlling depth of 17 feet (5.2 meters) at mean low tide. An adjacent wharf is approximately 240 feet in length (72 meters) with a controlling depth of 15 feet at mean low tide. Power is available at both locations. Facilities at the pier/marine area include fully equipped machine /fabrication and marine overhaul shops. Also at Site 1, six Range User Buildings are maintained for assembling test equipment and equipment check-out during test mobilization or dockside periods. These staging areas are equipped with a variety of power sources, gantry cranes, compressed air and security features. A fully equipped range user hanger for ground maintenance and storage of helicopters is located at the AUTEC helicopter airstrip. Sites 2, 3, and 4 are small instrumented areas located south of Site 1 used to extend tracking of sonobuoys, communications, and air target track.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Atlantic Undersea Test and Eval Ctr Facility	39.854	40.800	43.683	0.000	43.683
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> AUTEC is a Test and Evaluation facility for collecting selected underwater, surface and air tracking data on test participants. This project funds the overhead/institutional costs required to sustain the Major Range and Test Facility capabilities at AUTEC in accordance with Department of Defense Directive 3200.11.					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017		
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0541 / AUTEC		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
The funding increase from FY 217 to FY 2018 supports resolution of policy compliance issues resulting from a Naval Sea Systems Command Inspector General/Newport Office of Counsel and Contracting review; and the certified ordnance barge capabilities for fleet training.						
FY 2016 Accomplishments: Continue to maintain and operate mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility (MRTFB) operations. Reimburse the Command for General and Administrative support services.						
FY 2017 Plans: Continue to maintain and operate mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services. Increased funding to resolve policy compliance issues resulting from a Naval Sea Systems Command Inspector General/Newport Office of Counsel and Contracting review.						
FY 2018 Base Plans: Continue to maintain and operate mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services. Continue to support resolution of policy compliance issues resulting from a Naval Sea Systems Command Inspector General/Newport Office of Counsel and Contracting review.						
Increased funding supports the certified ordnance carrying barge capability for fleet training.						
FY 2018 OCO Plans: N/A						
Title: Bahamian Lease		11.271	11.756	11.756	0.000	11.756
Articles:		-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Navy				<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 0541 / <i>AUTEC</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Description:</b> Rental payments to the Bahamian government for use of land and ocean in the Bahamas.						
<b>FY 2016 Accomplishments:</b> Continue to provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.						
<b>FY 2017 Plans:</b> Continue to provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.						
<b>FY 2018 Base Plans:</b> Continue to provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.						
<b>FY 2018 OCO Plans:</b> N/A						
<b>Accomplishments/Planned Programs Subtotals</b>		51.125	52.556	55.439	0.000	55.439
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>Remarks</b>						
<b>D. Acquisition Strategy</b> Not applicable.						
<b>E. Performance Metrics</b> Maintain Major Range and Test Facility Base infrastructure in a ready state to provide between 2,500-2,900 range hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy									Date: May 2017			
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 0566 / NAVAIR Environmental Compliance			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
0566: NAVAIR Environmental Compliance	0.000	4.249	4.219	4.382	-	4.382	4.459	4.605	4.698	4.792	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This continuing project supports environmental compliance, conservation and pollution prevention related efforts at the Navy Major Range and Test Facility Base (MRTFB) located at Patuxent River, MD, China Lake, CA, Point Mugu, CA, and Atlantic Undersea Test and Evaluation Center, Bahamas. The Navy MRTFB environmental projects include ongoing efforts to comply with Federal, State, and local environmental requirements.												
The MRTFB are test and evaluation facilities that provide for Department of Defense test and evaluation support missions. These missions include: Weapons system testing, military operational squadron training on new weapon systems, and validation of performance or operational characteristics.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Environmental Compliance								4.249	4.219	4.382	0.000	4.382
								Articles: -	-	-	-	-
Description: Projects supporting level 1 compliance requirements at Naval Air Systems Command Ranges inclusive of hazardous waste disposal, Resource Conservation & Recovery Act (RCRA), Subtitle C - 40 CFR 260 through 279, and Emergency Planning and Community Right-to-Know Act (EPCRA), Sections 311-312; solid waste disposal, RCRA, Subtitle D - 40 CFR Parts 239 through 259; natural & cultural resources programs, National Environmental Policy Act (NEPA), Environmental Protection Act, Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), Archeological and Historic Preservation Act (AHPA), maintaining of environmental permits, Clean Air Act (CAA), Clean Water Act (CWA), and environmental monitoring. RCRA, 42 U.S.C. Section 6901 et sequens 1976; EPCRA, 42 U.S.C. Section 11001-11050 et sequens 1986; NEPA, 42 U.S.C. Section 4331 et sequens 1969; MMPA, 16 U.S.C. Section 1361 et sequens 1972; CWA, 33 U.S.C. Section 1251-1387 1972; ESA, 7 U.S.C. Section 136, 16 U.S.C. Section 1531 et sequens 1973; AHPA, 16 USC Section 469-469c-2 1960; and CAA, Title V, 33 U.S.C. Section 1251 et sequens 1972.												
								FY 2016 Accomplishments: Continue the identification and funding of level 1 requirements that support compliance projects at Naval Air Systems Command (NAVAIR) Ranges to ensure applicable laws and regulations are met and Range mission/ operations proceed unencumbered. Global Information Systems Encroachment Data Supporting Testing & Training, 0.2				

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<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 0566 / <i>NAVAIR Environmental Compliance</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Cultural Surveys Supporting Testing & Training, 0.1 <b>FY 2017 Plans:</b> Continue the identification and funding of level 1 requirements that support compliance projects at NAVAIR Ranges to ensure applicable laws and regulations are met and Range mission/operations proceed unencumbered. Global Information Systems Encroachment Data Supporting Testing & Training, 0.2 Cultural Surveys Supporting Testing & Training, 0.1 <b>FY 2018 Base Plans:</b> Continue the identification and funding of level 1 requirements that support compliance projects at NAVAIR Ranges to ensure applicable laws and regulations are met and Range mission/operations proceed unencumbered. Global Information Systems Encroachment Data Supporting Testing & Training, 0.2 Cultural Surveys Supporting Testing & Training, 0.1 <b>FY 2018 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	4.249	4.219	4.382	0.000	4.382
<b>C. Other Program Funding Summary (\$ in Millions)</b>					
N/A					
<b>Remarks</b>					
<b>D. Acquisition Strategy</b>					
Not applicable.					
<b>E. Performance Metrics</b>					
Funding and execution of 37 level 1 compliance projects with quarterly project reviews, and monthly monitoring of expenditures vs. execution of project deliverables/objectives. Primary metric gauging performance of these projects is the maintaining of compliance with pertinent laws and regulations as noted in section B.					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / <i>Test &amp; Evaluation Support</i>				Project (Number/Name) 0653 / <i>NAWC Weapons Division</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
0653: <i>NAWC Weapons Division</i>	0.000	141.856	135.521	140.001	-	140.001	142.958	147.660	150.612	153.600	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Project provides continuing maintenance and operational support for the Naval Air Warfare Center Weapons Division Test and Evaluation (T&E) capabilities. These capabilities include the Pacific Ranges and Facilities, consisting of China Lake Ranges and the Point Mugu Sea Range, aerial and surface targets, test instrumentation, and T&E aircraft. The Pacific Ranges use China Lake's 1.1 million acres of land and 17,000 square miles of military restricted (R-2508) airspace together with Point Mugu's 125,000 square miles of instrumented sea range and 36,000 square miles of controlled overlying airspace, and airfield and test instrumentation at San Nicolas Island to perform its T&E mission. Included in the China Lake ranges is the Electronic Combat Range (ECR), which provides outdoor free space development and operational testing of airborne electronic warfare systems and tactics against shipboard and land based air defense systems. These ranges perform metric radar, multilateration and optical tracking of test objects; command, control, and destruct for range safety purposes; communications; frequency interference control and analysis; collection processing and display of telemetered data; real-time data processing and display; and the operation of a sub scale aerial target launch capability. Other test capabilities include sled tracks, measurement facility; propulsion, warhead, environmental, rocket motor, and other missile component test facilities; and gun ranges. This project funds costs that are not chargeable to customers.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Pacific Ranges	57.153	55.114	57.192	0.000	57.192
<b>Articles:</b>	-	-	-	-	-
<p><b>Description:</b> In accordance with Department of Defense Directive 3200.11., this project funds the overhead/ institutional costs required to sustain the Major Range and Test Facility Base (MRTFB) capabilities at the Pacific Ranges and Facilities located at China Lake and Point Mugu, CA. These facilities provide safe, instrumented, controlled open air testing utilizing the Land Range, Sea Range, ECR, Air Vehicle Modification and Instrumentation, and San Nicholas Island.</p> <p>The funding increase from FY 2017 to FY 2018 supports the sustainment of six new advanced high fidelity threat emitters at NAWC-WD ranges (five open loop Active Emitter Scan Array and one closed loop Passive Emitter Scan Array) operating in the C and S Radio Frequency Bands and E, F &amp; G Electronic Warfare Bands.</p> <p><b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission/core test support resources. These resources include test article instrumentation and systems required to safely conduct flight and ground test missions as well as schedule and control air, land, sea and associated range operating areas required to meet customer test workload. Fund</p>					



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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017		
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0653 / NAWC Weapons Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased services contracts, annual utilities and any costs necessary to manage and sustain the MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission/core test support resources. These resources include test article instrumentation and systems required to safely conduct flight and ground test missions as well as schedule and control air, land, sea and associated range operating areas required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased services contracts, annual utilities and any costs necessary to manage and sustain the Major Range and Test Facility Base (MRTFB) operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission/core test support resources. These resources include test article instrumentation and systems required to safely conduct flight and ground test missions as well as schedule and control air, land, sea and associated range operating areas required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased services contracts, annual utilities and any costs necessary to manage and sustain the MRTFB operations.  Increased funding supports the sustainment of six new advanced high fidelity threat emitters at NAWC-WD ranges (five open loop Active Emitter Scan Array and one closed loop Passive Emitter Scan Array) operating in the C and S Radio Frequency Bands and E, F & G Electronic Warfare Bands.  <b>FY 2018 OCO Plans:</b> N/A						
Title: Navy Test Wing Pacific  <div>Articles:</div> <b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Pacific located at China Lake and Point Mugu, CA. These facilities provide the Navy's principal Pacific test activity for Naval Aviation Systems Team aircraft, engaged in or supporting Test & Evaluation of aircraft, weapons and weapons systems.  <b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources associated with 11 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel,		22.162 -	20.964 -	21.337 -	0.000 -	21.337 -

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Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0653 / NAWC Weapons Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with 10 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with 10 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> Threat/Target Systems  <div><b>Articles:</b></div> <b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities. These facilities provide the airborne and seaborne threats for test and evaluation.  <b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain the MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment,		11.339 -	11.226 -	10.944 -	0.000 -	10.944 -

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Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0653 / NAWC Weapons Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain the MRTFB operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain the MRTFB operations.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> Test and Evaluation Ordnance  <b>Articles:</b>  <b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Test and Evaluation Ordnance facilities. These facilities provide test and evaluation of All-Up live ordnance and components.  <b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment		3.012 -	3.033 -	3.089 -	0.000 -	3.089 -

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Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0653 / NAWC Weapons Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.						
FY 2018 OCO Plans: N/A						
Title: Naval Air Warfare Center Weapons Division (NAWCWD) Command		48.190	45.184	47.439	0.000	47.439
Articles:		-	-	-	-	-
Description: This project funds the overhead/institutional costs required to sustain the NAWCWD MRTFB Test and Evaluation capabilities.						
The funding increase from FY 2017 to FY 2018 reflects a one-time cost to complete Pt. Mugu certification as a Gulfstream main operation base in preparation for maintenance support of the C-20 aircraft.						
FY 2016 Accomplishments: Continue to reimburse the Command for General and Administration Support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities, Navy Marine Corps Intranet, and any costs necessary to manage and sustain MRTFB operations.						
FY 2017 Plans: Continue to reimburse the Command for General and Administration Support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities, Navy Marine Corps Intranet, and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.						
FY 2018 Base Plans: Continue to reimburse the Command for General and Administration Support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities, Navy Marine Corps Intranet, and any costs necessary to manage and sustain MRTFB operations. Added maintenance start up for C-20 aircraft.						
FY 2018 OCO Plans: N/A						
Accomplishments/Planned Programs Subtotals		141.856	135.521	140.001	0.000	140.001

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy		Date: May 2017
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605864N / <i>Test &amp; Evaluation Support</i>	Project (Number/Name) 0653 / <i>NAWC Weapons Division</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> Not applicable.		
<b>E. Performance Metrics</b> Maintain MRTFB infrastructure in a ready state to provide between 4,300-4,800 range hours, 125-150 aerial target presentations, 400-450 surface target presentations, 11,000-11,500 ordnance test hours, and over 6,000 flight hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.		

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 0654 / NAWC Acft Division			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
0654: NAWC Acft Division	0.000	97.645	94.556	96.653	-	96.653	98.322	101.605	103.632	105.684	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides funds for the maintenance and operations of the Naval Air Warfare Center Aircraft Division's (NAWCAD's) Major Range and Test Facility Base (MRTFB) capabilities used to conduct test and evaluation for air platforms. NAWCAD has extensive airfield, flight test ranges, aircraft systems test facilities and simulation laboratories to support aircraft Research Development Test and Evaluation. This includes 50,000 square miles of airspace, 39,375 square miles of sea space, and 7,950 acres of land space. Product areas include aircraft systems flight test and evaluation, carrier suitability certification, test article preparation, installed system test and evaluation, and modeling and simulation support of the acquisition process. The Test and Evaluation Group, Patuxent River, performs development and operational test and evaluation of manned and unmanned air vehicle systems, including mission systems, equipment, subsystems, components, and support systems. This project also provides test and evaluation facilities for air-breathing propulsion systems and extensive facilities for conducting both installed and uninstalled aircraft engine development and test and evaluation. This project funds costs that are not chargeable to customers.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Atlantic Ranges	23.742	22.256	22.892	0.000	22.892
<b>Articles:</b>	-	-	-	-	-
<p><b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with the Atlantic Ranges and Facilities and Air Vehicle Modification and Instrumentation. These facilities provide safe, instrumented, controlled flight testing and training in air, sea, and land arenas.</p> <p><b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Undersea Test as well as ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p> <p><b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Undersea Test as well as ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Fund civilian labor, travel, transportation,</p>					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017		
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0654 / NAWC Acft Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Undersea Test as well as ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> Electromagnetic Environmental Effects (E-Cubed) and Air Combat Environment Test and Evaluation Facility (ACETEF)  <b>Articles:</b>  <b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with E-Cubed and ACETEF. These facilities provide Test & Evaluation support with integrated, interactive, and repeatable synthetic environments and reduce the risk and cost for programs with the use of installed systems tests to include simulation and stimulation tools, techniques and technologies.  <b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 Base Plans:</b>		19.879 -	19.729 -	19.667 -	0.000 -	19.667 -

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy			Date: May 2017			
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0654 / NAWC Acft Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range Test Facility Base (MRTFB) operations.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> Propulsion Systems Evaluation Facility (PSEF)  <b>Articles:</b>  <b>Description:</b> This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the PSEF. These facilities perform Test & Evaluation (T&E) of propulsion systems in the laboratories, engine test chambers and component test rigs of the PSEF and the Aircraft T&E Facility. Propulsion Systems consists of engines, engine components and accessories.  <b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 OCO Plans:</b> N/A		4.389 -	4.366 -	4.444 -	0.000 -	4.444 -
<b>Title:</b> Threat/Target Systems		1.621	1.645	1.675	0.000	1.675



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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017		
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0654 / NAWC Acft Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Articles:		-	-	-	-	-
Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities. These facilities provide the airborne and seaborne threats for T&E.						
FY 2016 Accomplishments: Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.						
FY 2017 Plans: Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.						
FY 2018 Base Plans: Continue to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.						
FY 2018 OCO Plans: N/A						
Title: Naval Test Wing Atlantic		22.474	21.658	22.068	0.000	22.068
Articles:		-	-	-	-	-
Description: This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Atlantic. These facilities provide support for Naval Aviation Systems Team aircraft, engaged in or supporting Test & Evaluation aircraft systems.						
FY 2016 Accomplishments: Continue to maintain and operate mission essential/core test support resources associated with 12 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel,						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy				Date: May 2017		
Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support		Project (Number/Name) 0654 / NAWC Acft Division		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with 11 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations.  <b>FY 2018 Base Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with 11 aircraft and related systems and flight test safety required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Title:</b> Naval Air Warfare Center Aircraft Division Command (NAWCAD)  <b>Articles:</b>  <b>Description:</b> This project funds the overhead/institutional costs required to sustain the NAWCAD MRTFB Test & Evaluation capabilities.  <b>FY 2016 Accomplishments:</b> Continue to reimburse the Command for General and Administrative support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2017 Plans:</b> Continue to reimburse the Command for General and Administrative support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.  <b>FY 2018 Base Plans:</b>		25.540 -	24.902 -	25.907 -	0.000 -	25.907 -

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Navy				<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 0654 / <i>NAWC Acft Division</i>		
<b><u>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</u></b>						
		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Continue to reimburse the Command for General and Administrative support services. Continue to fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.						
<b><i>FY 2018 OCO Plans:</i></b> N/A						
<b>Accomplishments/Planned Programs Subtotals</b>		97.645	94.556	96.653	0.000	96.653
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b> N/A						
<b><u>Remarks</u></b>						
<b><u>D. Acquisition Strategy</u></b> Not applicable.						
<b><u>E. Performance Metrics</u></b> Maintain Major Range Test Facility Base infrastructure in a ready state to provide between 8,700-9,200 range hours, 4,900-5,300 chamber hours, 9,500-10,000 Electromagnetic Environmental Effects test hours, and over 10,000 flight hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 2921 / Pacific Missile Range Facility			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
2921: Pacific Missile Range Facility	0.000	5.316	5.179	5.385	-	5.385	5.484	5.665	5.778	5.894	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This program provides continuing maintenance and operations support for Test & Evaluation (T&E) related capabilities at the Pacific Missile Range Facility (PMRF) located at Barking Sands on Kauai, HI. PMRF's T&E capabilities include precision radar and telemetry assets, the Mobile Aerial Target Support System (MATSS), and Stabilized High-accuracy Optical Tracking System (SHOTS). These assets support Navy, Department of Defense, and Army Missile Defense Test & Evaluation. This project funds costs not chargeable to customers.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: PMRF								5.316	5.179	5.385	0.000	5.385
Articles:								-	-	-	-	-
Description: This project funds the overhead/institutional costs required to sustain the recognized Major Range and Test Facility Base (MRTFB) capabilities at PMRF in accordance with Department of Defense Directive 3200.11.												
FY 2016 Accomplishments: Continue to maintain and operate mission essential/core test support resources including the precision radar and telemetry assets, the MATSS, the SHOTS, and the Telemetry Systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services.												
FY 2017 Plans: Continue to maintain and operate mission essential/core test support resources including the precision radar and telemetry assets, the MATSS, the SHOTS, and the Telemetry Systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services.												
FY 2018 Base Plans: Continue to maintain and operate mission essential/core test support resources including the precision radar and telemetry assets, the MATSS, the SHOTS, and the Telemetry Systems required to meet customer test workload.												

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Navy				<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 2921 / <i>Pacific Missile Range Facility</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range Test Facility Base (MRTFB) operations. Reimburse the Command for General and Administrative support services.  <b>FY 2018 OCO Plans:</b> N/A						
<b>Accomplishments/Planned Programs Subtotals</b>		5.316	5.179	5.385	0.000	5.385
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>Remarks</b>						
<b>D. Acquisition Strategy</b> Not applicable.						
<b>E. Performance Metrics</b> Maintain MRTFB infrastructure in a ready state to provide between 600-1,000 range hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 2922 / MRTFB Maint & Repair			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
2922: MRTFB Maint & Repair	0.000	39.583	96.034	44.378	-	44.378	45.704	41.756	44.229	45.068	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides funding for the maintenance and repair of the Major Range and Test Facility Base (MRTFB) Real Property Maintenance Activities (RPMA) at the Naval Air Warfare Center Weapons Division (NAWCWD), the Naval Air Warfare Center Aircraft Division (NAWCAD), and the Atlantic Undersea Test and Evaluation Center (AUTC). Funds mission critical emergency services, recurring maintenance and repair, and major repair projects. In addition it addresses priority items on the Backlog of Maintenance and Repair list.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Facility Maintenance and Repair	39.583	96.034	44.378	0.000	44.378
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Maintenance and repair of the MRTFB RPMA at NAWCWD, NAWCAD, and AUTC.					
<b>FY 2016 Accomplishments:</b> Continue to support mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at NAWCWD, NAWCAD, and AUTC. FY16 budget funds MRTFB facility to 80% of Department of Defense sustainment model and 23% of the Restoration and Modernization Model. Additional funding included to complete AUTC Pier Repairs and continue NAWCAD Hangar Life Extension.					
<b>FY 2017 Plans:</b> Continue to support mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at NAWCWD, NAWCAD, and AUTC. FY17 budget funds MRTFB facility to 80% of Department of Defense sustainment model and 23% of the Restoration and Modernization Model. Continue NAWCAD Hangar Life Extension.					
\$52.300 million is required to support necessary repairs to AUTC facilities resulting from Hurricane Matthew in October 2016. Damage includes, but is not limited to, roofs, air conditioning/ventilation systems, potable water distribution and storage, maritime navigation (channel) markers, and building siding, trim and doors. The following types of facilities were damaged: range use buildings, range operations support, exercise torpedo					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Navy				<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 2922 / <i>MRTFB Maint &amp; Repair</i>		
<b><u>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</u></b>						
		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
post-run, transient and permanent party housing, potable water distribution piping and storage tanks, storage and warehousing, and public works (e.g., machine shop, welding, roads and grounds).  <b><i>FY 2018 Base Plans:</i></b> Continue to support mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at NAWCWD, NAWCAD, and AUTECH. FY17 budget funds MRTFB facility to 80% of Department of Defense sustainment model and 23% of the Restoration and Modernization Model. Initiate NAVAIR Hangar recapitalization efforts and AUTECH Inspector General compliance projects to improve security. Improvements include fencing, security lighting and gate.  <b><i>FY 2018 OCO Plans:</i></b> N/A						
<b>Accomplishments/Planned Programs Subtotals</b>		39.583	96.034	44.378	0.000	44.378
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b> N/A						
<b><u>Remarks</u></b>						
<b><u>D. Acquisition Strategy</u></b> Not applicable.						
<b><u>E. Performance Metrics</u></b> Maintain the 141, 357, and 784 building/structures at Naval Undersea Warfare Center Detachment (NUWC) Atlantic Undersea Test and Evaluation Center (AUTECH), Naval Air Warfare Center Aircraft Division (NAWCAD), and Naval Air Warfare Center Weapons Division (NAWCWD) respectively. Execute 15-20 major repair projects per year to address mission critical services.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 3154 / Nanoose and Dabob Bay Ranges			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
3154: Nanoose and Dabob Bay Ranges	0.000	11.695	11.421	11.556	-	11.556	11.771	12.171	12.418	12.671	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides maintenance and operations support for the Nanoose and Dabob Bay Ranges along with associated support systems to provide Test and Evaluation (T&E) and readiness assessment services for acquisition programs and the Fleet. Operates ocean-based environment, measurement and support systems. Maintains and repairs systems that measure warfare system performance. Oversees test, training, and measurement facilities, equipment, operations and maintenance processes. Satisfies customer exercise and measurement requirements through the operation of ocean based test and measurement systems. Assures the readiness of systems through the implementation of calibration, maintenance, repair and life cycle processes. Performs exercise planning, exercise interpretation and development of surrogate environments, measurement and support systems. Assists in the design, fabrication and testing of systems for Undersea Warfare warfare environment simulation and performance measurement. Oversees the manning and maintenance of Naval Undersea Warfare Center Division Keyport range craft and range craft systems.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Undersea Ranges	11.695	11.421	11.556	0.000	11.556
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> This project funds the overhead/institutional costs required to sustain the Major Range Test Facility Base (MRTFB) capabilities at the Nanoose and Dabob Bay undersea tracking ranges.					
<b>FY 2016 Accomplishments:</b> Continue to maintain and operate mission essential/core test support resources associated with the unique test environments for T&E of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services.					
<b>FY 2017 Plans:</b> Continue to maintain and operate mission essential/core test support resources associated with the unique test environments for T&E of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication,					



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Navy				<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0605864N / <i>Test &amp; Evaluation Support</i>		<b>Project (Number/Name)</b> 3154 / <i>Nanoose and Dabob Bay Ranges</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<p>equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburse the Command for General and Administrative support services.</p> <p><b><i>FY 2018 Base Plans:</i></b> Continue to maintain and operate mission essential/core test support resources associated with the unique test environments for Test and Evaluation of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Fund civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain Major Range and Test Facility Base (MRTFB) operations. Reimburse the Command for General and Administrative support services.</p> <p><b><i>FY 2018 OCO Plans:</i></b> N/A</p>						
<b>Accomplishments/Planned Programs Subtotals</b>		11.695	11.421	11.556	0.000	11.556
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>Remarks</b>						
<b>D. Acquisition Strategy</b> Not applicable.						
<b>E. Performance Metrics</b> Maintain MRTFB infrastructure in a ready state to provide between 1,600-2,000 range hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy										Date: May 2017		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605864N / Test & Evaluation Support				Project (Number/Name) 3386 / MRTFB Marine Vessels			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
3386: MRTFB Marine Vessels	0.000	0.000	13.960	15.873	-	15.873	13.092	19.640	16.256	16.545	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project is a new start FY17 program which funds the overhauls and preventative maintenance of the 23 Major Range and Test Facility Base (MRTFB) marine vessels located at Naval Air Warfare Center Weapons Division (NAWCWD), Point Mugu, CA, Pacific Missile Range Facility (PMRF), Honolulu, HI, Naval Undersea Warfare Center (NUWC) Keyport, WA, Naval Air Warfare Aircraft Division (NAWCAD), Patuxent River, MD, and Atlantic Undersea Test and Evaluation Center (AUTC). These vessels are used to launch and recover torpedoes, acoustic systems, and other weapons, provide range surveillance and clearance, and can be configured as a target. Overhauls are required to operate ships over 300 tons overseas in compliance with American Bureau of Shipping "Load Line" certification requirements. Major preventative maintenance requiring shipyard support is also performed during these periods to mitigate risks of failures.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> MRTFB Marine Vessels	0.000	13.960	15.873	0.000	15.873
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> This project funds the overhauls and preventative maintenance of the 23 MRTFB marine vessels located at NAWCWD, Point Mugu, CA, PMRF, Honolulu, HI, NUWC Keyport Nanoose and Dabob Bay Ranges, Keyport, WA, NAWCAD, Patuxent River, MD, and NUWC Detachment (AUTC).					
<b>FY 2016 Accomplishments:</b> N/A					
<b>FY 2017 Plans:</b> Initiate overhauls and preventative maintenance on five MRTFB vessels. Initiate Service Life Extension Projects for YTT-10, YTT-11, and Transporter vessels.					
<b>FY 2018 Base Plans:</b> Initiate overhauls and preventative maintenance on seven MRTFB vessels. Complete Service Life Extension Projects (SLEP) for YTT-10 and Transporter vessels, continue SLEP on YTT-11, and initiate SLEP of Rover vessel.					
<b>FY 2018 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	13.960	15.873	0.000	15.873

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy		Date: May 2017
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605864N / <i>Test &amp; Evaluation Support</i>	Project (Number/Name) 3386 / <i>MRTFB Marine Vessels</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> Not applicable.		
<b>E. Performance Metrics</b> Maintain Major Range Test Facility Base (MRTFB) marine vessels in a ready state to provide between 16,000-20,000 vessel hours in support of multiple Navy and Department of Defense acquisition programs and fleet training.		