| Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy | Date: May 2021 |
|---|---|
| **Appropriation/Budget Activity**<br>1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)* | **R-1 Program Element (Number/Name)**<br>PE 0605514M *I GROUND BASED ANTI-SHIP MISSILE* |

| COST ($ in Millions) | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Program Element | 0.000 | 0.000 | 29.678 | 102.716 | - | 102.716 | - | - | - | - | - | - |
| 6637: *Ground Based Anti-Ship Missile* | 0.000 | 0.000 | 29.678 | 102.716 | - | 102.716 | - | - | - | - | - | - |

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

As the Marine Corps' first Ground Based Anti-Ship Missile (GBASM) capability, the Navy/Marine Expeditionary Ship Interdiction System (NMESIS) is a Service Force Design Initial Operating Capability (IOC) priority central to the Marine Corps' contribution to the Naval Expeditionary Force's (NEF) anti-surface warfare campaign. Ground based launchers add a new type of threat against a peer adversary, stress different surveillance and offensive systems, are hard to detect and track in a cluttered environment, and add a significant level of persistence and depth to existing anti-ship capabilities. NMESIS will be employed by Medium-range Missile (MMSL) batteries serving as part of Marine Littoral Regiments (MLR) conducting Expeditionary Advanced Base Operations (EABO) while persisting inside the adversary's weapons engagement zone (WEZ). When integrated into sensor and communication networks supporting a naval/maritime killchain, and synchronized with employment of other missile systems, the Marine Corps' MMSL battery will serve as a component of the NEF "stand-in force" in support of the naval sea control effort.

NMESIS consists of two Naval Strike Missiles (NSM) and a launcher/weapon control system integrated on to a ground-based, remotely operated carrier (called ROGUE-Fires). It will provide a ground based anti-access/area denial, anti-ship capability. This program includes design, development, test and production of the NSM launcher, ROGUE-Fires carrier, Weapons Control System (WCS), and Command and Control (C2) connections to enable the transport and firing of NSMs. NMESIS makes extensive use of proven sub-systems, such as the Joint Light Tactical Vehicle (JLTV) chassis, the U.S. Navy's Naval Strike Missile and its WCS.

| B. Program Change Summary ($ in Millions) | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 29.678 | 102.716 | - | 102.716 |
| Total Adjustments | 0.000 | 29.678 | 102.716 | - | 102.716 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | -34.529 | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | 64.207 | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Rate/Misc Adjustments | 0.000 | 0.000 | 102.716 | - | 102.716 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy | Date: May 2021 |
|---|---|
| **Appropriation/Budget Activity**<br>1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)* | **R-1 Program Element (Number/Name)**<br>PE 0605514M *I GROUND BASED ANTI-SHIP MISSILE* |

**Change Summary Explanation**

The NMESIS program is leveraging a prototype development effort to integrate the existing Naval Strike Missile (NSM), currently being procured by the U.S. Navy as part of their Over-the-Horizon Missile Launching System (OTH-MLS), onto a tele-operated Joint Light Tactical Vehicle (JLTV) based launcher called the Remotely Operated Ground Unit for Expeditionary Fires (ROGUE-Fires), and develop/integrate the C2 and mobility control components onto a separate manned command vehicle.

In February 2021, the MROC approved the GBASM requirement and in March the Marine Corps artillery organizational modernization plans were implemented which then formed the basis of the NMESIS Materiel Development Decision on 21 March 2021. Due to the transition from a prototype development and demonstration to a program of record, the program significantly increased the testing and focused on maturing a baseline capability in FY21. The FY22 budget reflects the adjustment to an ACAT program of record with an IOT&E at the end of FY23. Increased FY22 testing is focused on validation of transportability requirements (CH-53, C-130, L class ships) and an extensive Operational Assessment (OA).

The increase of $73M from FY21 to FY22 is driven by the purchase of Production Representative Models (PRM) for testing ($36.8M); the development of a software planning module to enable platoon level planning ($12.1M); missiles for FY22 Operational Assessment (8 ballistic test missiles, 2 dummy pods, 22 simulator pods) and FY23 IOT&E (2 telemetry missiles) ($15.7M); and testing ($7.2M). Lead time for the telemetry missiles is 18 months necessitating FY22 procurements for the FY23 IOT&E.

The FY23 IOT&E PRM are required to be purchased in FY22 due to the 15 month lead time for the NSM launcher and 9 month lead time for the ROGUE-Fires carrier. PRMs will be placed on contract with Oshkosh and Raytheon after completion of FY21 testing and the system Critical Design Review (CDR). Eight PRM are required to support IOT&E based on MCOTEA's assessment of the minimum test quantities. An additional two PRM are planned to support E3 and Signature testing which occurs concurrently with the IOT&E New Equipment Training (NET).

| Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy | | | Date: May 2021 |
|---|---|---|---|
| Appropriation/Budget Activity<br>1319 / 4 | R-1 Program Element (Number/Name)<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | Project (Number/Name)<br>6637 / *Ground Based Anti-Ship Missile* | |

| COST ($ in Millions) | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6637: *Ground Based Anti-Ship Missile* | 0.000 | 0.000 | 29.678 | 102.716 | - | 102.716 | - | - | - | - | - | - |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |

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

This is a critical CMC Force Design program. As the Marine Corps' first Ground Based Anti-Ship Missile (GBASM) capability, the Navy/Marine Expeditionary Ship Interdiction System (NMESIS) is a Service Force Design Initial Operating Capability (IOC) priority central to the Marine Corps' contribution to the Naval Expeditionary Force's (NEF) anti-surface warfare campaign. Ground based launchers add a new type of threat against a peer adversary, stress different surveillance and offensive systems, are hard to detect and track in a cluttered environment, and add a significant level of persistence and depth to existing anti-ship capabilities. NMESIS will be employed by Medium-range Missile (MMSL) batteries serving as part of Marine Littoral Regiments (MLR) conducting Expeditionary Advanced Base Operations (EABO) while persisting inside the adversary's weapons engagement zone (WEZ). When integrated into sensor and communication networks supporting a naval/maritime killchain, and synchronized with employment of other missile systems, the Marine Corps' MMSL battery will serve as a component of the NEF "stand-in force" in support of the naval sea control effort.

NMESIS consists of two Naval Strike Missiles (NSM) and a launcher/weapon control system integrated on to a ground-based, remotely operated carrier (called ROGUE-Fires). It will provide a ground based anti-access/area denial, anti-ship capability. This program includes design, development, test and production of the NSM launcher, ROGUE-Fires carrier, Weapons Control System (WCS), and Command and Control (C2) connections to enable the transport and firing of NSMs. NMESIS makes extensive use of proven sub-systems, such as the Joint Light Tactical Vehicle (JLTV) chassis, the U.S. Navy's Naval Strike Missile and its WCS.

FY21 completes the hardware design configuration and initial testing. FY 2022 procures test assets and conducts Operational Assessments with ballistic testing in preparation for IOT&E in FY 2023. This will enable an initial set of NMESIS to be deployed to the Marine Littoral Regiment (MLR) in early FY 2024.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|---|---|---|---|---|
| ***Title:*** Navy Marine Expeditionary Ship Interdiction System (NMESIS) | 0.000 | 29.678 | 102.716 | 0.000 | 102.716 |
| ***Articles:*** | - | - | - | - | - |
| ***FY 2021 Plans:***<br>Integrate an existing Anti-Ship Missile (ASM) capability onto Marine Corps ground platforms. Activities include:<br>- Deliver a NMESIS prototype<br>- Update Weapon Control System (WCS) and Tactical Communication Adapter (TCA) software design<br>- Conduct guided flight test<br>- Conduct NMESIS mobility characterization testing at Nevada Automotive Test Center (NATC) | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|---|---|---|---|---|
| - Complete NMESIS hardware design of ROGUE-Fires Carrier and NSM Launcher<br>- Refine tactics, techniques and procedures (TTPs) with Marine Operators<br><br>***FY 2022 Base Plans:***<br>Integrate an existing ASM capability onto Marine Corps ground platforms. Activities include:<br>- Complete update of WCS and TCA<br>- Initiate development of platoon level mission planning software<br>- Build NMESIS Production Representative Models (PRM) for testing (8 for IOT&E, 2 for Electromagnetic Environment Effects/Signal (E3/SIG) testing)<br>- Purchase missiles for FY22 Operational Assessment (OA) (8 ballistic test missiles, 2 dummy pods, 22 simulator pods) and FY23 IOT&E (2 telemetry missiles)<br>- Conduct Marine Corps Operational Test & Evaluation Activity (MCOTEA) OA of NMESIS to include ballistic test events<br>- Conduct transportability tests for CH-53, C-130, L-class ships, and ship to shore connectors<br>- Conduct fleet and user evaluations with NMESIS to refine tactics, techniques, and procedures (TTPs) with Marine operators<br><br>***FY 2022 OCO Plans:***<br>N/A<br><br>***FY 2021 to FY 2022 Increase/Decrease Statement:***<br>The increase of $73M from FY21 to FY22 is driven by the purchase of PRM for testing ($36.8M); the development of a software planning module to enable platoon level planning ($12.1M); missiles for FY22 OA and FY23 IOT&E ($15.7M); and testing ($7.9M). The lead time of 15 months for the NSM launcher, 9 months for the ROGUE-Fires carrier, and 18 months for the telemetry missiles necessitate procurement in FY22 to support the FY23 IOT&E. | | | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 29.678 | 102.716 | 0.000 | 102.716 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • 2212: *Artillery Weapons System* | 95.686 | 49.687 | 67.826 | - | 67.826 | - | - | - | - | - | - |

| Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

BLI 2212 Artillery Weapons System includes funding for HIMARS, GBASM, and LRF.

**D. Acquisition Strategy**

The GBASM concept started as an effort to conduct a live-fire, guided flight demonstration of ground based anti-ship capability in order to inform future requirements. The effort evaluated multiple solutions from FY 2018 through FY 2020. In FY 2020, as part of Force Design 2030, the USMC decided to incorporate ground based anti-ship capability into the force structure. In February 2021, the MROC approved the GBASM requirement and in March the Marine Corps artillery organizational modernization plans were implemented which then formed the basis of the NMESIS Materiel Development Decision on 21 March 2021.

The successful November 2020 live-fire demonstration provided sufficient data to provide confidence the capability is mature enough to proceed as an Major Capability Acquisition (MCA) pathway program. The program will enter at Milestone B in 4th quarter 2021 at which time it is anticipated to become a ACAT III designated program and then proceed to a tailored MCA program with a Milestone C planned for 2Q FY 2023.

At the end of FY 2021, after successful mobility and firing tests, production contracts will be awarded for the baseline configuration approved at the Critical Design Review (CDR). These contracts will cover procurement of systems for Initial Operational Test & Evaluation (IOT&E), Low Rate Initial Production, Full Rate Production, Contractor Logistics Support and spares. After completion of the Operational Assessment, a delta CDR will be conducted to identify changes, if any, required prior to final assembly of the IOT&E configuration and follow on production assets. There will be two Marine Corps production contracts: Remotely-operated carrier (ROGUE-Fires); Launcher and fire control system. The Missile procurement will be accomplished via a Navy contract executed through the Navy Over-the-Horizon (OTH) Weapons Systems program office. The Other Transaction Authority (OTAs) agreements used to develop the initial systems will continue to be used to support program office testing through FY 2022 and may be used for future capability development. Developmental and operational system testing will be conducted in coordination with the Marine Corps Operational Test and Evaluation Activity. Additionally, missile testing will be coordinated with PM OTH-WS as part of their operational testing.

Initial sustainment strategy depends heavily on Contractor Logistics Support (CLS). Commonality with JLTV and OTH-WS components will support accelerated transition to primary organic logistics support, augmented where necessary by CLS. The program office has coordinated with the Marine Corps Training and Education Command in a manpower and training Integrated Product Team to develop a long-term support plan.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSM Launcher and WCS Development | C/CPFF | Raytheon Company : Tucson, AZ | 0.000 | 0.000 | | 19.455 | Nov 2020 | 16.744 | Nov 2021 | - | | 16.744 | - | - | - |
| PRM - Launcher | SS/FPIF | Raytheon Company : Tucson, AZ | 0.000 | 0.000 | | 0.000 | | 18.493 | Nov 2021 | - | | 18.493 | - | - | - |
| PRM - WCS | SS/FPIF | Raytheon Company : Tucson, AZ | 0.000 | 0.000 | | 0.000 | | 3.947 | Nov 2021 | - | | 3.947 | - | - | - |
| Platoon Level Planning | C/CPFF | Raytheon Company : Tucson, AZ | 0.000 | 0.000 | | 0.000 | | 12.096 | Nov 2021 | - | | 12.096 | - | - | - |
| Rogue-Fires Carrier Development | C/CPFF | Oshkosh : Oshkosh, WI | 0.000 | 0.000 | | 2.000 | Nov 2020 | 5.481 | Dec 2021 | - | | 5.481 | - | - | - |
| PRM - Carrier | SS/FPIF | Oshkosh : Oshkosh, WI | 0.000 | 0.000 | | 0.000 | | 10.749 | Feb 2022 | - | | 10.749 | - | - | - |
| PRM - Leader Kit | SS/FPIF | Oshkosh : Oshkosh, WI | 0.000 | 0.000 | | 0.000 | | 2.642 | Feb 2022 | - | | 2.642 | - | - | - |
| PRM - Re-Supply | TBD | TBD : TBD | 0.000 | 0.000 | | 0.000 | | 1.012 | Jan 2022 | - | | 1.012 | - | - | - |
| Tactical Comm Adapter | WR | NSWC-DD : Dahlgren, VA | 0.000 | 0.000 | | 0.650 | Nov 2020 | 0.857 | Nov 2021 | - | | 0.857 | - | - | - |
| | | **Subtotal** | 0.000 | 0.000 | | 22.105 | | 72.021 | | - | | 72.021 | - | - | N/A |

**Remarks**

$49.9M from FY21 to FY22 is driven primarily by the purchase of Production Representative Models ($36.8M) for E3, SIG, NET, and IOT&E (10 carriers, 10 launchers, 10 WCS, 5 Leader Kits) and the development of a platoon level planning module ($12.1M). PRMs need to be ordered in FY22 due to lead time.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Safety | WR | MCSC : Stafford, VA | 0.000 | 0.000 | | 0.205 | Oct 2020 | 0.207 | Dec 2021 | - | | 0.207 | - | - | - |
| Cybersecurity/IA | WR | NSWC : Indian Head, MD | 0.000 | 0.000 | | 0.035 | Nov 2020 | 0.148 | Dec 2021 | - | | 0.148 | - | - | - |
| Management and Prof. Services | Various | MCSC : various | 0.000 | 0.000 | | 0.097 | Nov 2020 | 0.126 | Jan 2022 | - | | 0.126 | - | - | - |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.337 | | 0.481 | | - | | 0.481 | - | - | N/A |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSM Missile Test Articles | C/FFP | Raytheon : Tuscon, AZ | 0.000 | 0.000 | | 0.463 | Nov 2020 | 15.680 | Dec 2021 | - | | 15.680 | - | - | - |
| Launcher Ctr Test & Engineering Support | C/CPFF | Raytheon : Tucson, AZ | 0.000 | 0.000 | | 1.330 | Nov 2020 | 3.940 | Dec 2021 | - | | 3.940 | - | - | - |
| Government Eng Support | C/FFP | NAWC WD : China Lake, CA | 0.000 | 0.000 | | 2.077 | Oct 2020 | 1.334 | Dec 2021 | - | | 1.334 | - | - | - |
| Carrier Ctr Test & Engineering Support | C/CPFF | Oshkosh : Oshkosh, WI | 0.000 | 0.000 | | 0.000 | | 2.656 | Dec 2021 | - | | 2.656 | - | - | - |
| Government Eng Support | MIPR | NSWC-DD : Dahlgren, VA | 0.000 | 0.000 | | 0.136 | Dec 2020 | 1.327 | Dec 2021 | - | | 1.327 | - | - | - |
| Government Test Support | Various | various : various | 0.000 | 0.000 | | 1.544 | Oct 2020 | 1.461 | Oct 2021 | - | | 1.461 | - | - | - |
| Transportability Test | Various | various : various | 0.000 | 0.000 | | 1.588 | Nov 2021 | 0.512 | Nov 2021 | - | | 0.512 | - | - | - |
| Operational Assessment | Various | MCOTEA : Camp Pendleton, CA | 0.000 | 0.000 | | 0.000 | | 3.157 | Dec 2021 | - | | 3.157 | - | - | - |
| | | **Subtotal** | 0.000 | 0.000 | | 7.138 | | 30.067 | | - | | 30.067 | - | - | N/A |

**Remarks**

$22.9M increase is driven primarily by procurement of missile test articles ($15.7M) for OA (8 ballistic test missiles, 2 dummy pods, 22 simulator pods), and IOT&E (2 telemetry missiles), the MCOTEA led Operational Assessment ($3.2M), and associated test support. IOT&E articles need to be ordered in FY22 due to lead time.

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GBASM Travel | Various | Various : Various | 0.000 | 0.000 | | 0.098 | Dec 2020 | 0.147 | Dec 2021 | - | | 0.147 | - | - | - |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

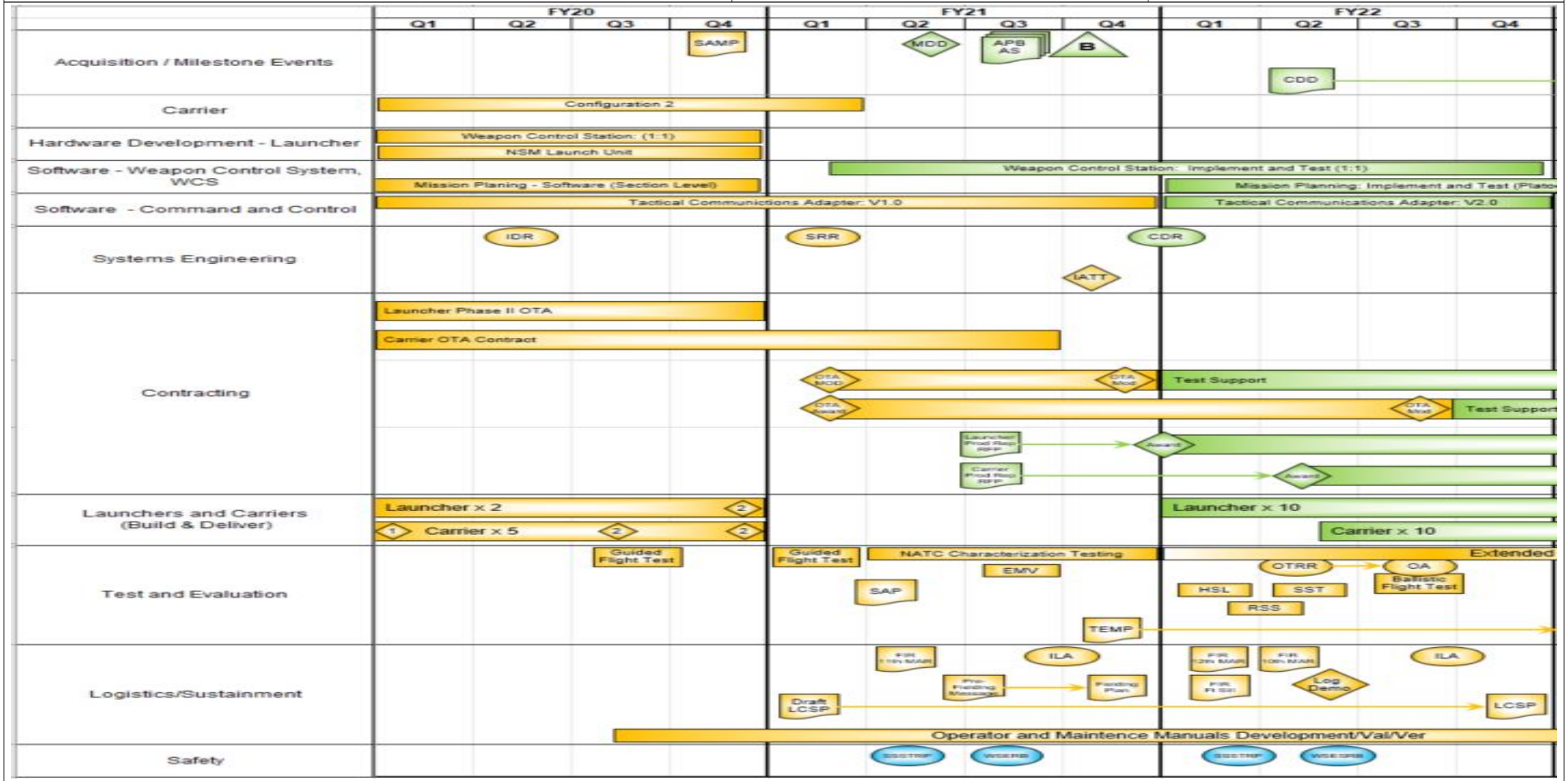
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2020 Cost | FY 2020 Award Date | FY 2021 Cost | FY 2021 Award Date | FY 2022 Base Cost | FY 2022 Base Award Date | FY 2022 OCO Cost | FY 2022 OCO Award Date | FY 2022 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.098 | | 0.147 | | - | | 0.147 | - | - | N/A |

| | Prior Years | FY 2020 | | FY 2021 | | FY 2022 Base | | FY 2022 OCO | | FY 2022 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 29.678 | | 102.716 | | - | | 102.716 | - | - | N/A |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy | | Date: May 2021 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 4 | **R-1 Program Element (Number/Name)**<br>PE 0605514M / *GROUND BASED ANTI-SHIP MISSILE* | **Project (Number/Name)**<br>6637 / *Ground Based Anti-Ship Missile* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Proj 6637*** | | | | |
| Materiel Development Decision (MDD) | 2 | 2021 | 2 | 2021 |
| Milestone B | 4 | 2021 | 4 | 2021 |
| Launcher PRM Contract Award | 1 | 2022 | 1 | 2022 |
| Carrier PRM Contract Award | 2 | 2022 | 2 | 2022 |
| Operational Assesment (OA) | 3 | 2022 | 3 | 2022 |