

UNCLASSIFIED

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|--|-------------|---------|---------|--------------|---|---------------|---------|---------|---------|---------------------|------------------|------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy | | | | | | | | | | Date: February 2018 | | |
| Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD) | | | | | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | | | | | | | |
| COST (\$ in Millions) | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| Total Program Element | 0.000 | 0.000 | 0.000 | 326.945 | - | 326.945 | 296.281 | 193.699 | 19.933 | 20.420 | Continuing | Continuing |
| 3059: CH-53K Development | 0.000 | 0.000 | 0.000 | 326.945 | - | 326.945 | 296.281 | 193.699 | 19.933 | 20.420 | Continuing | Continuing |
| Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): 390 | | | | | | | | | | | | |
| Note Funds increase from FY 2018 to FY 2019 due to transfer of effort from PE 0605212N beginning in FY 2019. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K "King Stallion" will provide improvements in range and payload, performance, cargo handling, turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC). Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for System Development and Demonstration (SDD), to be purchased with Research, Development, Test & Evaluation (RDT&E) funds. Of the remaining 200 aircraft, six will be System Demonstration Test Articles (SDTAs) and will be incrementally funded using RDT&E funds. The SDTAs will be used to prove out production and integration processes on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. The remaining 194 aircraft will be Aircraft Procurement, Navy funded. This is not a New Start program. FY19 and beyond are realigned from PE 0605212N /CH-53K to this PE 0605212M /CH-53K. JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decision. | | | | | | | | | | | | |

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|---|---------|-----------------------------------|--------------|---------------------|---------------|
| Appropriation/Budget Activity | | R-1 Program Element (Number/Name) | | | |
| 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD) | | PE 0605212M / CH-53K | | | |
| B. Program Change Summary (\$ in Millions) | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Previous President's Budget | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 0.000 | 326.945 | - | 326.945 |
| Total Adjustments | 0.000 | 0.000 | 326.945 | - | 326.945 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Program Adjustments | 0.000 | 0.000 | 330.321 | - | 330.321 |
| • Rate/Misc Adjustments | 0.000 | 0.000 | -3.376 | - | -3.376 |
| Change Summary Explanation | | | | | |
| Funds increase from FY 2018 to FY 2019 due to transfer of effort from PE 0605212N beginning in FY 2019. | | | | | |
| Technical: Not applicable. | | | | | |
| Schedule: Not applicable. | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy | | | | | | | | | | Date: February 2018 | | |
| Appropriation/Budget Activity 1319 / 5 | | | | | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | | | | Project (Number/Name) 3059 / CH-53K Development | | | |
| COST (\$ in Millions) | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| 3059: CH-53K Development | 0.000 | 0.000 | 0.000 | 326.945 | - | 326.945 | 296.281 | 193.699 | 19.933 | 20.420 | Continuing | Continuing |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |
| Project MDAP/MAIS Code: 390 | | | | | | | | | | | | |
| Note This is not a New Start program. Funding was realigned from PE 0605212N /CH-53K to this PE 0605212M /CH-53K. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K "King Stallion" will provide improvements in range and payload, performance, cargo handling, turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC). Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for System Development and Demonstration (SDD), to be purchased with Research, Development, Test & Evaluation (RDT&E) funds. Of the remaining 200 aircraft, six will be System Demonstration Test Articles (SDTAs) and will be incrementally funded using RDT&E funds. The SDTAs will be used to prove out production and integration processes on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. SDTAs are shown in the year of contract award vice year of delivery. The remaining 194 aircraft will be Aircraft Procurement, Navy funded. This is not a New Start program. Funding was realigned from PE 0605212N /CH-53K to this PE 0605212M /CH-53K. FY19 RDT&E funds CH-53K SDD activities to include additional ground and flight test of one GTV, four EDMs and four SDTAs, associated subsystems and components, and the continued fabrication and assembly of the remaining two SDTA aircraft. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | |
| Title: Air Vehicle Development Articles: FY 2018 Plans: N/A FY 2019 Base Plans: | | | | | | | 0.000 | 0.000 | 272.161 | 0.000 | 272.161 | |
| | | | | | | | - | - | - | - | - | |
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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy | | | | Date: February 2018 | | |
| Appropriation/Budget Activity 1319 / 5 | | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | | Project (Number/Name) 3059 / CH-53K Development | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Additional ground and flight test of the CH-53K GTV, EDMs and their associated subsystems and components in preparation and commencement of IOT&E. Continue to evaluate and implement producability, reliability and capability improvements during fabrication and assembly of System Demonstration Test Articles (SDTA) 5-6. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Increase from FY 2018 0605212N to FY 2019 0605212M includes additional ground and flight test of the CH-53K GTV, EDMs and their associated subsystems and components in preparation and commencement of IOT&E. Continue to evaluate and implement producability, reliability and capability improvements during fabrication and assembly of System Demonstration Test Articles (SDTA) 5-6. | | | | | | |
| Title: Integrated Logistics Support and Test & Evaluation (T&E) Articles: | | 0.000 - | 0.000 - | 37.827 - | 0.000 - | 37.827 - |
| FY 2018 Plans: N/A FY 2019 Base Plans: Continue to perform in-house, field activity and contractor support of Integrated Logistic Support and Developmental Test program. Continue to refine and validate Product Support Packages in preparation and commencement of IOT&E, as well as Supportability Test Plans. Continue component qualification, Government ground and flight test activities, as well as LFT&E efforts. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Decrease from FY 2018 0605212N to FY 2019 0605212M includes reduced Development Support, Developmental Test & Evaluation, and CSS Support as the development and integration efforts are ramping down. | | | | | | |
| Title: Systems Engineering & Project Management Articles: | | 0.000 - | 0.000 - | 16.957 - | 0.000 - | 16.957 - |
| FY 2018 Plans: N/A FY 2019 Base Plans: | | | | | | |

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| Appropriation/Budget Activity 1319 / 5 | | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | | Project (Number/Name) 3059 / CH-53K Development |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|--|--|--|--|----------------|----------------|-------------------------|------------------------|--------------------------|
| Continue to perform in-house, field activity and contractor support of test program Integrated Product Teams as development and integration efforts are ramping down. Continue to monitor and plan for Correction of Deficiencies identified during component qualification and flight test. Efforts include engineering, program management and test program travel. | | | | | | | | | |
| FY 2019 OCO Plans: N/A | | | | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: Decrease from FY 2018 0605212N to FY 2019 0605212M includes reduced Engineering, Program Management, and CSS Support as development and integration efforts are ramping down. | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | 0.000 | 0.000 | 326.945 | 0.000 | 326.945 |

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

| <u>Line Item</u> | <u>FY 2017</u> | <u>FY 2018</u> | <u>FY 2019 Base</u> | <u>FY 2019 OCO</u> | <u>FY 2019 Total</u> | <u>FY 2020</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u> | <u>Cost To Complete</u> | <u>Total Cost</u> |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| • APN / 0158 / 0158C: CH-53K (Heavy Lift) | 416.484 | 714.651 | 1,274.883 | - | 1,274.883 | 1,375.696 | 1,888.964 | 2,263.281 | 2,287.373 | 13,246.549 | 23,509.181 |
| • APN / 0605: CH-53K - Initial Spares | 68.408 | 41.656 | 59.040 | - | 59.040 | 114.611 | 100.920 | 16.803 | 17.144 | Continuing | Continuing |
| • APN / 0528: H-53 Series | 0.000 | 0.000 | 19.032 | - | 19.032 | 31.446 | 21.407 | 27.799 | 36.326 | 27.083 | 163.093 |

Remarks

APN/0158/0158C: CH-53K Advanced and Regular Procurement (APN-1)
 APN/0605: CH-53K Spares (APN-6)
 APN/0528: CH-53K OSIP #s 007-19 Correction of Deficiencies and 008-19 Production Upgrades

D. Acquisition Strategy

On 31 October 2005, the Defense Acquisition Board (DAB) reviewed the CH-53K program for a Milestone (MS) B decision on entry to Systems Design and Development (SDD). The Under Secretary of the Defense for Acquisition, Technology and Logistics (USD AT&L) signed the Acquisition Decision Memorandum (ADM) allowing the program to proceed with SDD on 22 December 2005. The CH-53K program was initiated as an Acquisition Category 1D program, based on total estimated costs for Research, Development, Test and Evaluation and Aircraft Procurement, Navy. The SDD prime contract was awarded sole-source contract to Sikorsky Aircraft Corporation on 5 April, 2006, following the MS B decision. SDD efforts will develop and document technology maturations, selections, and integration into CH-53E design modifications for a new CH-53K variant; produce one CH-53K Ground Test Vehicle and four CH-53K Engineering Developmental Models; and conduct and support Test and Evaluation activities fulfilling milestone exit criteria. In FY13 the SDD contract was modified to include four System Demonstration Test Articles

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| Appropriation/Budget Activity 1319 / 5 | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | Project (Number/Name) 3059 / CH-53K Development | |

(SDTAs). In FY15 the SDD contract was modified to add the long-lead/critical parts for the two additional SDTA aircraft. The T408-GE-400 engines for SDTAs 1-4, which were converted from Contractor Furnished Equipment to Government Furnished Equipment, were placed on contract in FY14. Additionally, a contract option was exercised in FY15 to provide engines for SDTAs 5-6. On 30 March 2017, the DAB reviewed the CH-53K program for a MS C decision allowing entry into Production and the ADM was signed by USD AT&L on 4 April 2017.

E. Performance Metrics

Since MS B, the program team has followed a disciplined, event-driven, design and development process. The program completed Preliminary Design Review in September 2008 and conducted Critical Design Review in July 2010. System meets or exceeds all Key Performance Parameters.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy **Date:** February 2018

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| Appropriation/Budget Activity 1319 / 5 | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | Project (Number/Name) 3059 / CH-53K Development |
|--|--|---|

| Product Development (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|---|------------------------|-------------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Primary Hardware Development: SDD / SDTA Air Vehicle | SS/CPIF | Sikorsky : Stratford, CT | 0.000 | 0.000 | | 0.000 | | 267.921 | Dec 2018 | - | | 267.921 | 477.825 | 745.746 | 749.656 |
| Ancillary Hardware Development: DECM | SS/CPFF | Northrup Grumman : Falls Church, VA | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| GFE: Various | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| GFE: Engines | SS/CPFF | GE : Lynn, MA | 0.000 | 0.000 | | 0.000 | | 1.150 | Jan 2019 | - | | 1.150 | 0.000 | 1.150 | 1.150 |
| Incentive Fees | SS/CPIF | Sikorsky : Stratford, CT | 0.000 | 0.000 | | 0.000 | | 3.090 | Jan 2019 | - | | 3.090 | 6.929 | 10.019 | 10.019 |
| RAA: JUONS-S0-0010 (DAIRCM) | TBD | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Prior year Prod Dev cost no longer funded in the FYDP | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 272.161 | | - | | 272.161 | 484.754 | 756.915 | N/A |

Remarks

Primary Hardware Development Target Value of Contract includes System Demonstration Test Articles (SDTAs).
 Ancillary Hardware Development provides funding for Defensive Electronic Countermeasures (DECM) contract.
 Government Furnished Equipment/Engines provides funding for SDTA engine contract.
 FY17-19 Incentive Fees are a contractual requirement as potential schedule incentives based on continued progress of the SDTA aircraft.

| Support (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|------------------------------|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Development Support | Various | NAWCAD : Lakehurst, NJ | 0.000 | 0.000 | | 0.000 | | 1.150 | Dec 2018 | - | | 1.150 | 0.750 | 1.900 | - |
| Integrated Logistics Support | WR | NAWCAD : Lakehurst, NJ | 0.000 | 0.000 | | 0.000 | | 1.200 | Dec 2018 | - | | 1.200 | 2.129 | 3.329 | - |
| Integrated Logistics Support | WR | NADEP : Cherry Point, NC | 0.000 | 0.000 | | 0.000 | | 1.325 | Dec 2018 | - | | 1.325 | 1.261 | 2.586 | - |
| Integrated Logistics Support | C/CPFF | GDIT : Fairfax, VA | 0.000 | 0.000 | | 0.000 | | 1.578 | Apr 2019 | - | | 1.578 | 2.522 | 4.100 | 4.100 |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy **Date:** February 2018

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| Appropriation/Budget Activity 1319 / 5 | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | Project (Number/Name) 3059 / CH-53K Development |
|--|--|---|

| Support (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|--------------------------------|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Integrated Logistics Support | WR | Various : Various | 0.000 | 0.000 | | 0.000 | | 1.655 | Dec 2018 | - | | 1.655 | 1.977 | 3.632 | - |
| Government Engineering Support | WR | NAWCTSD : Orlando, FL | 0.000 | 0.000 | | 0.000 | | 1.523 | Dec 2018 | - | | 1.523 | 0.877 | 2.400 | - |
| Studies & Analyses | WR | NSWC : Crane, IN | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Studies & Analyses | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 8.431 | | - | | 8.431 | 9.516 | 17.947 | N/A |

Remarks
NAWC TSD training systems previously captured under "Integrated Logistic Support - Various" are now contained in the Government Engineering support line.

| Test and Evaluation (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|--------------------------------------|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Developmental Test & Evaluation | WR | Various : Various | 0.000 | 0.000 | | 0.000 | | 1.475 | Dec 2018 | - | | 1.475 | 2.094 | 3.569 | - |
| Developmental Test & Evaluation | WR | NAWCAD : Pax River, MD | 0.000 | 0.000 | | 0.000 | | 22.894 | Dec 2018 | - | | 22.894 | 15.682 | 38.576 | - |
| Operational Test & Evaluation | WR | COMOPTEVFOR : Norfolk, VA | 0.000 | 0.000 | | 0.000 | | 1.877 | Dec 2018 | - | | 1.877 | 6.060 | 7.937 | - |
| Live Fire Test & Evaluation | WR | NAWCWD : China Lake, CA | 0.000 | 0.000 | | 0.000 | | 3.150 | Dec 2018 | - | | 3.150 | 1.350 | 4.500 | - |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 29.396 | | - | | 29.396 | 25.186 | 54.582 | N/A |

| Management Services (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|--------------------------------------|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Contractor Engineering Support | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 2.848 | Dec 2018 | - | | 2.848 | 3.452 | 6.300 | - |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy **Date:** February 2018

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| Appropriation/Budget Activity 1319 / 5 | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | Project (Number/Name) 3059 / CH-53K Development |
|--|--|---|

| Management Services (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | | | |
|---|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Government Engineering Support | WR | NAWCAD : Pax River, MD | 0.000 | 0.000 | | 0.000 | | 10.958 | Dec 2018 | - | | 10.958 | 2.232 | 13.190 | - |
| Program Management Support | C/CPFF | Camber : Huntsville, AL | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Program Management Support | C/CPFF | Zenetix : Herndon, VA | 0.000 | 0.000 | | 0.000 | | 2.208 | Jan 2019 | - | | 2.208 | 3.110 | 5.318 | 5.318 |
| Program Management Support | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.833 | Dec 2018 | - | | 0.833 | 1.793 | 2.626 | - |
| Travel | WR | NAWCAD : Pax River, MD | 0.000 | 0.000 | | 0.000 | | 0.110 | Dec 2018 | - | | 0.110 | 0.290 | 0.400 | - |
| Prior year Mgmt cost no longer funded in the FYDP | Various | Various : Various | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | - |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 16.957 | | - | | 16.957 | 10.877 | 27.834 | N/A |

Remarks
Management Services requirements continue to decrease FY17-19 as both Government and Contractor support transitions to the CH-53K Production program.

| | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| Project Cost Totals | 0.000 | 0.000 | 0.000 | 326.945 | - | 326.945 | 530.333 | 857.278 | N/A |

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)

PE 0605212M / CH-53K

Project (Number/Name)

3059 / CH-53K Development

| CH-53K Development | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
|---------------------------------|---------|----|----|----|---------|----|----|----|-----------------------------|----|----|----|---------|-------|-------|----|---------|-------|----|----|-------------------------|----|----|----|---------|----|----|----|
| | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q |
| Acquisition Milestones | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Milestones | | | | | | | | | System Demonstration phase | | | | | IOC ▲ | | | | FRP ▲ | | | | | | | | | | |
| System Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardware Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Software Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reviews | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Development Deliveries | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capability Improvements | | | | | | | | | | | | | | | | | | | | | Capability Improvements | | | | | | | |
| Test & Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Developmental Test & Evaluation | | | | | | | | | Developmental Test/TECHEVAL | | | | | | | | | | | | | | | | | | | |
| Operational Test & Evaluation | | | | | | | | | | | | | IOT&E | | FOT&E | | | | | | | | | | | | | |
| Deliveries | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sys. Dem. Test Articles (RDT&E) | | | | | | | | | 1 ▼ | | | | 1 ▼ | 1 ▼ | 1 ▼ | | | | | | | | | | | | | |
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2019PB - 0605212M - 3059

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| Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy | | | Date: February 2018 |
| Appropriation/Budget Activity 1319 / 5 | R-1 Program Element (Number/Name) PE 0605212M / CH-53K | Project (Number/Name) 3059 / CH-53K Development | |

Schedule Details

| Events by Sub Project | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| CH-53K Development | | | | |
| Acquisition Milestones: Milestones: System Demonstration phase | 1 | 2019 | 3 | 2019 |
| Acquisition Milestones: Milestones: Initial Operational Capability | 1 | 2020 | 1 | 2020 |
| Acquisition Milestones: Milestones: Full Rate Production | 1 | 2021 | 1 | 2021 |
| System Development: Capability Improvements: Capability Improvements | 1 | 2022 | 4 | 2023 |
| Test & Evaluation: Developmental Test & Evaluation: Developmental Test / TECHEVAL | 1 | 2019 | 3 | 2019 |
| Test & Evaluation: Operational Test & Evaluation: IOT&E | 4 | 2019 | 1 | 2020 |
| Test & Evaluation: Operational Test & Evaluation: FOT&E | 2 | 2020 | 2 | 2022 |
| Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #2 | 1 | 2019 | 1 | 2019 |
| Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #3 | 4 | 2019 | 4 | 2019 |
| Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #4 | 2 | 2020 | 2 | 2020 |
| Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #5 | 1 | 2020 | 1 | 2020 |
| Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #6 | 2 | 2020 | 2 | 2020 |