Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	873.257	392.433	256.903	220.240	-	220.240	144.310	22.695	22.828	22.437	0.000	1,955.103
3059: *CH-53K Development*	873.257	392.433	256.903	220.240	-	220.240	144.310	22.695	22.828	22.437	0.000	1,955.103

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 390

A. Mission Description and Budget Item Justification

The CH-53K is a next generation fly by wire heavy-lift helicopter that provides significant improvements in range, payload, performance, cargo handling, turn-around times, reliability, maintainability, interoperability and survivability. It is the only marinized heavy-lift helicopter in the world and the Department of Defense's only heavy-lift helicopter. The CH-53K mission is to support the Marine Air-Ground Task Force (MAGTF) Commander by providing assault support transport of heavy equipment, combat troops, and supplies, day or night under all weather conditions during expeditionary, joint, or combined operations.

- Provides a greater payload at greater ranges than any current or emerging rotorcraft to support the rapid transition of Joint and Coalition forces from contact to blunt layer activities in a contested environment.
- Addresses current connector shortfalls making it a critical enabler in the execution of distributed operations; a key component of the Marine Corps' Expeditionary Advanced Base Operations concept which supports the President's National Security Strategy, the Tri-Service Maritime Strategy and the Navy's Distributed Maritime Operational concept.
- Capable of integrating into the current battlefield and taking advantage of future technologies, such as manned/unmanned teaming and MAGTF digital interoperability.
- The modern fly by wire system provides greater safety, survivability, and reliability compared to other joint rotorcraft.
- When compared to the legacy aircraft, improves reliability and decreases operations and support costs by reducing maintenance man hours per flight hour while maximizing work effectiveness and efficiency.

Total aircraft quantities for the CH-53K program are 205 helicopters. This currently includes one Ground Test Vehicle (GTV), four Engineering Development Models (EDMs) for System Development and Demonstration (SDD), and four System Demonstration Test Articles (SDTAs) purchased with Research, Development, Test & Evaluation (RDT&E) funds. The remaining 196 aircraft are funded with Aircraft Procurement, Navy (APN).

The CH-53K SDD program received a successful Milestone C decision on 4 April 2017.

Remaining funding across the FYDP is required to complete SDD and test activities.

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 a full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy					Date: April 2022
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*		
B. Program Change Summary ($ in Millions)	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**
Previous President's Budget	406.406	256.903	0.000	-	0.000
Current President's Budget	392.433	256.903	220.240	-	220.240
Total Adjustments	-13.973	0.000	220.240	-	220.240
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-13.973	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	220.240	-	220.240

Change Summary Explanation

Schedule - IOC updates from Q4 2021 (Program Objective) to Q3 2022 to reflect the current PM estimate.

FY 2023 funding increase reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy											Date: April 2022	
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 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
3059: *CH-53K Development*	873.257	392.433	256.903	220.240	-	220.240	144.310	22.695	22.828	22.437	0.000	1,955.103
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 390

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 to conduct 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 currently includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for System Development and Demonstration (SDD) purchased with Research, Development, Test & Evaluation (RDT&E) funds. Of the remaining 200 aircraft, four are System Demonstration Test Articles and 196 are funded with APN.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Air Vehicle Development	334.259	204.172	169.751	0.000	169.751
Articles:	-	-	-	-	-
FY 2022 Plans: Continue to develop software and correct deficiencies discovered during IOT&E in support of the final deployable configuration.					
FY 2023 Base Plans: Continue to develop software and correct deficiencies discovered during IOT&E in support of the final deployable configuration.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
The decrease of $34.421M from FY 2022 to FY 2023 is a result of decreased corrections required as the program moves closer to the final deployable configuration.					
Title: Integrated Logistics Support and Test & Evaluation (T&E) ***Articles:*** ***FY 2022 Plans:*** Continue to refine and validate Product Support Packages and Supportability Test Plans to align with IOT&E and support the final deployable configuration. ***FY 2023 Base Plans:*** Continue to refine and validate Product Support Packages and Supportability Test Plans to support the final deployable configuration. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The decrease of $1.653M from FY 2022 to FY 2023 is due to a reduction in support for IOT&E and LFT&E.	45.923 -	43.323 -	41.670 -	0.000 -	41.670 -
Title: Systems Engineering & Project Management ***Articles:*** ***FY 2022 Plans:*** Continue to perform in-house, field activity and contractor execution of test program Integrated Product Teams. Continue to plan for, and execute, Correction of Deficiencies identified during component qualification and flight test. Efforts include engineering, program management and test program travel. ***FY 2023 Base Plans:*** Continue to perform in-house, field activity and contractor execution of test program Integrated Product Teams. Continue to plan for, and execute, Correction of Deficiencies identified during component qualification and flight test. Efforts include engineering, program management and test program travel. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Decrease of $0.589 from FY 2022 to FY 2023 is due to reduced contractor engineering support.	12.251 -	9.408 -	8.819 -	0.000 -	8.819 -
Accomplishments/Planned Programs Subtotals	392.433	256.903	220.240	0.000	220.240

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605212M / *CH-53K*	**Project (Number/Name)** 3059 / *CH-53K Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• APN / 0158 / 0158C: *CH-53K (Heavy Lift)*	1,308.805	1,669.297	2,027.810	-	2,027.810	2,264.910	2,752.018	2,825.093	2,719.557	8,397.221	27,567.352
• APN / 0605: *CH-53K - Initial Spares*	141.761	163.577	19.666	-	19.666	43.267	7.349	0.000	0.000	279.071	947.577
• APN / 0528: *H-53 Series*	15.446	27.991	25.281	-	25.281	32.118	39.685	40.205	200.763	Continuing	Continuing

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.

D. Acquisition Strategy

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 resulting in an ACAT 1C designation.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy		Date: April 2022
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development: SDD / SDTA Air Vehicle	SS/CPIF	Sikorsky : Stratford, CT	653.158	269.149	Dec 2020	161.649	Feb 2022	146.707	Dec 2022	-		146.707	126.941	1,357.604	1,357.604
GFE: Engines	SS/CPFF	GE : Lynn, MA	17.236	0.645	Jan 2021	0.000		0.000		-		0.000	0.000	17.881	17.881
Primary Hardware Development-Other SAC	TBD	Sikorsky : Stratford, CT	68.653	57.533	Jan 2021	36.149	Jan 2022	17.581	Jan 2023	-		17.581	35.064	214.980	214.980
Primary Hardware Development	Various	Various : Various	29.517	6.932	Apr 2021	6.374	Apr 2022	5.463	Apr 2023	-		5.463	5.265	53.551	53.551
		Subtotal	768.564	334.259		204.172		169.751		-		169.751	167.270	1,644.016	N/A

Remarks

FY23 funding is in direct support of the System Development and Demonstration Aircraft (SDD) test program to align with IOT&E discoveries and support the final deployable configuration.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	NAWCAD : Lakehurst, NJ	3.733	2.238	Dec 2020	2.124	Mar 2022	2.189	Dec 2022	-		2.189	2.110	12.394	-
Integrated Logistics Support	WR	NAWCAD : Lakehurst, NJ	2.494	0.185	Dec 2020	0.169	Mar 2022	0.175	Dec 2022	-		0.175	0.168	3.191	-
Integrated Logistics Support	WR	Various : Various	5.251	0.883	Dec 2020	0.555	Mar 2022	0.560	Dec 2022	-		0.560	0.540	7.789	-
Integrated Logistics Support	C/CPFF	NSI : Lexington Park, MD	2.847	1.403	Apr 2021	0.588	Apr 2022	0.594	Apr 2023	-		0.594	0.573	6.005	6.005
Government Engineering Support	WR	NAWCTSD : Orlando, FL	0.901	0.250	Dec 2020	0.200	Mar 2022	0.206	Dec 2022	-		0.206	0.199	1.756	-
		Subtotal	15.226	4.959		3.636		3.724		-		3.724	3.590	31.135	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605212M / *CH-53K*	Project (Number/Name) 3059 / *CH-53K Development*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various : Various	2.547	0.653	Dec 2020	2.193	Dec 2021	2.719	Dec 2022	-		2.719	2.216	10.328	-
Developmental Test & Evaluation	WR	NAWCAD : Pax River, MD	54.764	27.298	Dec 2020	34.127	Dec 2021	32.946	Dec 2022	-		32.946	27.554	176.689	-
Operational Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA	1.936	8.248	Dec 2020	2.707	Dec 2021	2.281	Dec 2022	-		2.281	1.905	17.077	-
Live Fire Test & Evaluation	WR	NAWCWD : China Lake, CA	7.213	4.765	Dec 2020	0.660	Dec 2021	0.000		-		0.000	0.000	12.638	-
		Subtotal	66.460	40.964		39.687		37.946		-		37.946	31.675	216.732	N/A

Remarks

FY23 T&E funding supports the prime contractor (SDD/SDTA) schedule for flight test/hours and the final deployable configuration.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various : Various	2.694	2.802	Dec 2020	1.382	Dec 2021	0.537	Dec 2022	-		0.537	1.824	9.239	9.239
Government Engineering Support	WR	NAWCAD : Pax River, MD	14.688	7.611	Dec 2020	6.736	Dec 2021	7.015	Dec 2022	-		7.015	6.761	42.811	-
Program Management Support	C/CPFF	Zenetex : Herndon, VA	2.503	0.000		0.000		0.000		-		0.000	0.000	2.503	2.503
Program Management Support	Various	Various : Various	2.602	1.088	Dec 2020	1.122	Dec 2021	1.095	Dec 2022	-		1.095	1.055	6.962	6.962
Travel	WR	NAWCAD : Pax River, MD	0.520	0.750	Nov 2020	0.168	Nov 2021	0.172	Nov 2022	-		0.172	0.095	1.705	-
		Subtotal	23.007	12.251		9.408		8.819		-		8.819	9.735	63.220	N/A

Remarks

FY23 support is required for in-house activities to include program management and engineering support for the Integrated Product teams to support the final deployable configuration.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605212M / *CH-53K*	Project (Number/Name) 3059 / *CH-53K Development*	

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	873.257	392.433		256.903		220.240		-		220.240	212.270	1,955.103	N/A

Remarks

Requirements are stable; the program continues to execute the revised Joint Program Plan (JPP) established Feb 2019 and approved by the MDA, to address technical issues found during previous developmental test activities. Current RDT&E funding is aligned with this plan.

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605212M / *CH-53K*	**Project (Number/Name)** 3059 / *CH-53K Development*

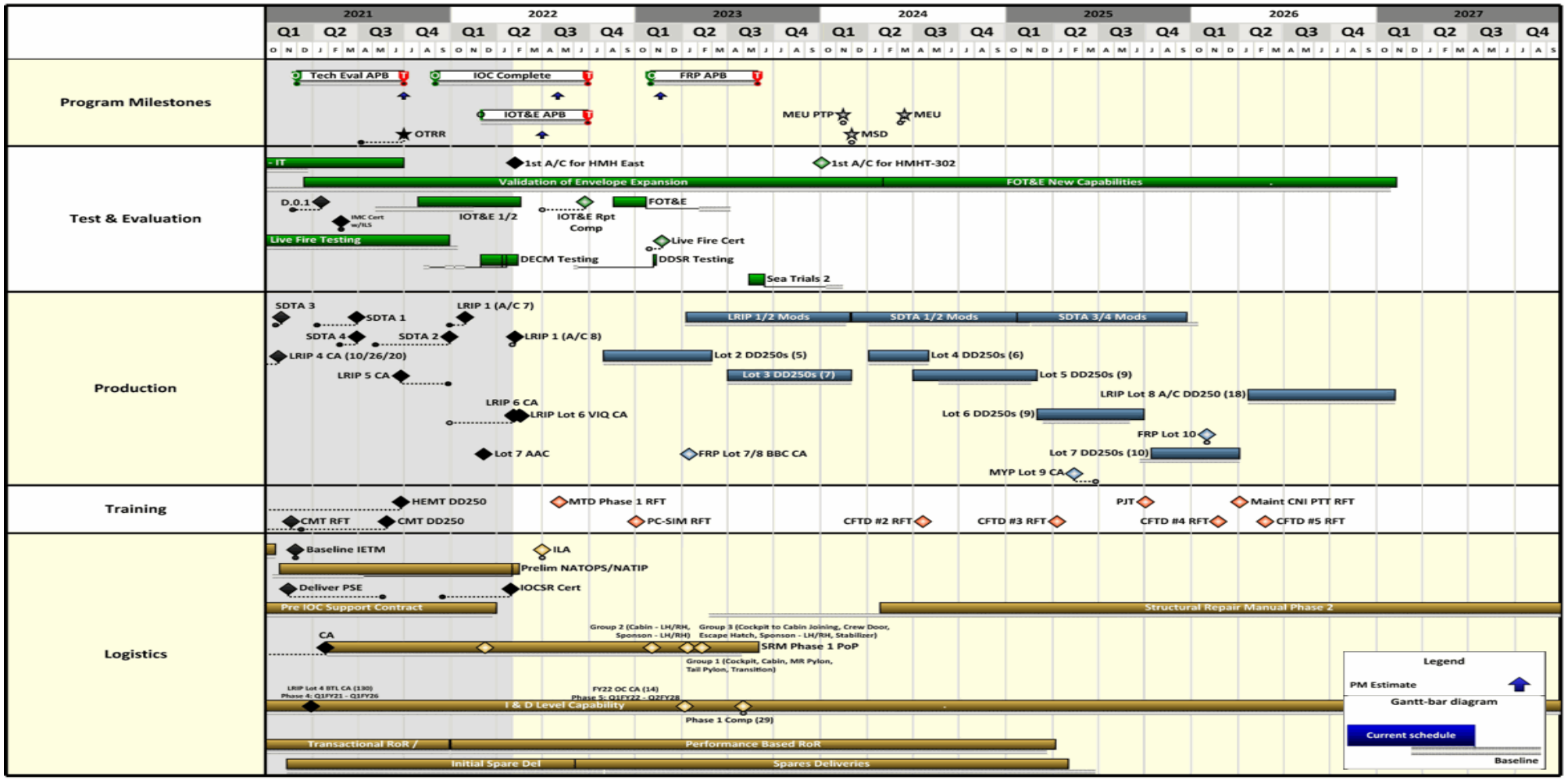

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0605212M / *CH-53K*	**Project (Number/Name)** 3059 / *CH-53K Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CH-53K Development				
Acquisition Milestones: Milestones: Initial Operational Capability	3	2022	3	2022
Acquisition Milestones: Milestones: Full Rate Production	1	2023	1	2023
Test & Evaluation: Developmental Test & Evaluation: Developmental Test / Operational Test - IT	1	2021	3	2021
Test & Evaluation: Operational Test & Evaluation: IOT&E	4	2021	2	2022
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #3	1	2021	1	2021
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #2	4	2021	4	2021
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #4	2	2021	2	2021
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #1	2	2021	2	2021
Production Milestones: LRIP / FRP Awards: Lot 5	3	2021	3	2021
Production Milestones: LRIP / FRP Awards: Lot 6	2	2022	2	2022
Production Milestones: LRIP / FRP Awards: Lot 7	2	2023	2	2023
Production Milestones: LRIP / FRP Awards: Lot 8	1	2024	1	2024
Production Milestones: LRIP / FRP Awards: Lot 9	2	2025	2	2025
Production Milestones: LRIP / FRP Awards: Lot 10	1	2026	1	2026
Production Milestones: LRIP / FRP Awards: Lot 11	1	2027	1	2027