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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Navy **Date:** April 2022

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / <i>Navy Tactical Computer Resources</i>
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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	23.786	3.798	4.290	4.177	-	4.177	4.179	3.938	4.021	4.100	Continuing	Continuing
3360: <i>Common Processing System (CPS)</i>	8.160	1.489	1.459	1.497	-	1.497	1.537	1.404	1.433	1.463	Continuing	Continuing
3361: <i>Common Display System (CDS)</i>	15.626	2.309	2.831	2.680	-	2.680	2.642	2.534	2.588	2.637	Continuing	Continuing

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

Common Processing System (CPS) and Common Display System (CDS) programs support developing computing infrastructure in a competitively sourced environment. The Common Display System (CDS) & Common Processing System (CPS) provide technical replacements for obsolete display and processing equipment (such as AN/UYQ-70) for multiple warfare systems aboard Surface Combatants and Large Deck class ships.

CPS equipment suite provides computer processing and memory, data storage and extraction, network systems, and Input/Output (I/O) interfaces to host software applications of Navy combat systems. These upgrades support AEGIS Modernization, AEGIS new construction, AEGIS Ashore, Ship Self Defense System (SSDS) MK2 modernization and new construction for all large deck platforms, Surface Electronic Warfare Improvement Program (SEWIP), and other Navy programs. Funding provides for technical management and Engineering Change Proposals (ECP) development for the common baseline. Funding also supports future tech refresh development efforts. Procurement and development funds provided by user programs support program unique requirements.

CDS suite consists of the Technology Insertion (TI) 16 MOD 1 configuration, a follow-on to previous designs beginning with the TI 12 variant. The Navy's TI 16 MOD 1 display and peripheral solutions include Common Display System (CDS) consoles, Thin Client Displays (TCDs), Multi-Mission Displays (MMDs), and peripheral equipment. Upgrades that include these support AEGIS modernization, AEGIS new construction, AEGIS Ashore, DDG-1000, Ship Self Defense System (SSDS) MK 2, Gun Weapon System (GWS), SEWIP, and other Navy programs. Funding provides for technical management and Engineering Change Proposals (ECP) development for the common baseline along with future tech refresh development efforts. Procurement and development funds provided by user programs support program unique requirements.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Navy	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / <i>Navy Tactical Computer Resources</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	3.836	4.290	0.000	-	0.000
Current President's Budget	3.798	4.290	4.177	-	4.177
Total Adjustments	-0.038	0.000	4.177	-	4.177
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.038	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	-	-	4.177	-	4.177

**Change Summary Explanation**

No Major Program Changes

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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources				<b>Project (Number/Name)</b> 3360 / Common Processing System (CPS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3360: Common Processing System (CPS)	8.160	1.489	1.459	1.497	-	1.497	1.537	1.404	1.433	1.463	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

CPS equipment suite provides computer processing and memory, data storage and extraction, network systems, and Input/Output (I/O) interfaces to host software applications of Navy combat systems. These upgrades support AEGIS Modernization, AEGIS new construction, AEGIS Ashore, Ship Self Defense System (SSDS) MK2 modernization and new construction for all large deck platforms, Surface Electronic Warfare Improvement Program (SEWIP), and other Navy programs. Funding provides for technical management and Engineering Change Proposals (ECP) development for the common baseline. Funding also supports future tech refresh development efforts. Procurement and development funds provided by user programs support program unique requirements.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Common Processing System (CPS)	1.489	1.459	1.497	0.000	1.497
<b>Articles:</b>	-	-	-	-	-
<b>FY 2022 Plans:</b> Continue system-engineering support of CPS development efforts required to support various Combat and Weapon System Configurations. Development efforts include but are not limited to continued qualification of cabinets along with associated parts and procurement of testing equipment, both of which impact SSDS, SEWIP, and other Navy programs. Address obsolescence issues as they are identified within the CPS equipment suite and future tech refresh development efforts.					
<b>FY 2023 Base Plans:</b> Continue system-engineering support of CPS development efforts required to support various Combat and Weapon System Configurations. Development efforts include but are not limited to continued qualification of cabinets along with associated parts and procurement of testing equipment, both of which impact SSDS, SEWIP, and other Navy programs. Address obsolescence issues as they are identified within the CPS equipment suite and future tech refresh development efforts.					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3360 / Common Processing System (CPS)

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
FY 2023 Increase - Inflation Adjustment					
<b>Accomplishments/Planned Programs Subtotals</b>	1.489	1.459	1.497	0.000	1.497

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

N/A

**Remarks**

**D. Acquisition Strategy**

CPS Contract Award.

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3360 / Common Processing System (CPS)
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<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Systems Engineering	WR	NSWC : PHD	0.549	0.163	Oct 2020	0.141	Oct 2021	0.145	Oct 2022	-		0.145	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Dahlgren	4.333	0.710	Oct 2020	0.698	Oct 2021	0.725	Oct 2022	-		0.725	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	TBD : TBD	2.441	0.000	Oct 2020	0.000		0.000		-		0.000	0.000	2.441	-
<b>Subtotal</b>			7.323	0.873		0.839		0.870		-		0.870	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Program Management Services	Various	Various : Various	0.837	0.616	Oct 2020	0.620	Oct 2021	0.627	Oct 2022	-		0.627	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.837	0.616		0.620		0.627		-		0.627	Continuing	Continuing	N/A

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	8.160	1.489	1.459	1.497	-	1.497	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Navy</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3360 / Common Processing System (CPS)

Fiscal Year	2021				2022				2023				2024				2025				2026				2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	RDT&E,N/BA-5	PE 0604574N / Navy Tactical Computer Resources								3360 / Common Processing System (CPS)																		
Common Processing System (CPS) TI12 H Sustainment Contract					Sustainment Contract																							
Common Processing System (CPS) TI 16 (MK6 MOD 0)	Support Production Contract																											
Common Processing System (CPS) TI 16 (MK6 MOD 1)									Production Contract																			

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Navy		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3360 / Common Processing System (CPS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3360</b>				
Common Processing System (CPS): TI12H Sustainment Contract	1	2021	4	2024
Common Processing System (CPS): TI16 (MK6 MOD0) Production Contract	1	2021	1	2022
Common Processing System (CPS): TI16 (MK6 MOD1) Production Contract	1	2021	3	2025

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources				<b>Project (Number/Name)</b> 3361 / Common Display System (CDS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3361: Common Display System (CDS)	15.626	2.309	2.831	2.680	-	2.680	2.642	2.534	2.588	2.637	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

CDS suite consists of the Technology Insertion (TI) 16 MOD 1 configuration, a follow-on to previous designs beginning with the TI 12 variant. The Navy's TI 16 MOD 1 display and peripheral solutions include Common Display System (CDS) consoles, Thin Client Displays (TCDs), Multi-Mission Displays (MMDs), and peripheral equipment. Upgrades that include these support AEGIS modernization, AEGIS new construction, AEGIS Ashore, DDG-1000, Ship Self Defense System (SSDS) MK 2, Gun Weapon System (GWS), SEWIP, and other Navy programs. Funding provides for technical management and Engineering Change Proposals (ECP) development for the common baseline along with future tech refresh development efforts. Procurement and development funds provided by user programs support program unique requirements.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Common Display System (CDS)	2.309	2.831	2.680	0.000	2.680
<b>Articles:</b>	-	-	-	-	-
<b>FY 2022 Plans:</b> Continue system engineering support of CDS development efforts required to support various Combat and Weapon System Configurations. Development efforts include but are not limited to drawing updates and upgrade of equipment design, both of which impact SSDS, SEWIP, and other Navy programs. Address obsolescence's issues as they are identified within the CDS equipment suite. Support engineering analysis of issues identified within field configuration to develop resolution plan to improve reliability, readiness, or reduce operating costs, and future tech refresh development efforts.					
<b>FY 2023 Base Plans:</b> Continue system engineering support of CDS development efforts required to support various Combat and Weapon System Configurations. Development efforts include but are not limited to drawing updates and upgrade of equipment design, both of which impact SSDS, SEWIP, and other Navy programs. Address obsolescence's issues as they are identified within the CDS equipment suite. Support engineering analysis of issues identified within field configuration to develop resolution plan to improve reliability, readiness, or reduce operating costs, and future tech refresh development efforts.					
<b>FY 2023 OCO Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3361 / Common Display System (CDS)

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> FY 2023 Decrease - Program schedule					
<b>Accomplishments/Planned Programs Subtotals</b>	2.309	2.831	2.680	0.000	2.680

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
CDS Contract award.

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3361 / Common Display System (CDS)
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<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Systems Engineering	WR	NSWC : PHD	0.932	0.198	Dec 2020	0.398	Oct 2021	0.412	Oct 2022	-		0.412	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Dahlgren	8.964	0.890	Oct 2020	1.154	Oct 2021	1.027	Oct 2022	-		1.027	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	General Dynamics : Fairfax, VA	1.977	0.518	Oct 2020	0.506	Oct 2021	0.515	Oct 2022	-		0.515	0.000	3.516	-
Systems Engineering	C/CPIF	DRS Technologies : Gaithersburg, MD	2.092	0.528	Dec 2020	0.628	Oct 2021	0.401	Oct 2022	-		0.401	0.000	3.649	-
Systems Engineering	C/CPIF	TBD : TBD	1.195	0.175	Oct 2020	0.145	Oct 2021	0.140	Oct 2022	-		0.140	0.000	1.655	-
<b>Subtotal</b>			15.160	2.309		2.831		2.495		-		2.495	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Services	Various	Various : Various	0.466	0.000		0.000		0.185	Oct 2022	-		0.185	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.466	0.000		0.000		0.185		-		0.185	Continuing	Continuing	N/A

	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>		15.626	2.309	2.831	2.680	-	2.680	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Navy</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3361 / Common Display System (CDS)

Fiscal Year	RDT&E/N/BA-5																PE 0604574N / Navy Tactical Computer Resources																3361 / Common Display System (CDS)															
	2021				2022				2023				2024				2025				2026				2027																							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																				
Common Display System (CDS) TI12 Sustainment Contract			Expected Award													Sustainment Contract																																
Common Display System (CDS) TI 16 (MK6 MOD 0)		Support Production Contract																																														
Common Display System (CDS) TI 16 (MK6 MOD 1)												Production Contract																																				

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Navy		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604574N / Navy Tactical Computer Resources	<b>Project (Number/Name)</b> 3361 / Common Display System (CDS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3361</b>				
Common Display System (CDS): T112H Sustainment Contract Award	3	2021	3	2021
Common Display System (CDS): T112H Sustainment Contract	3	2021	3	2026
Common Display System (CDS): T116 (MK6 MOD0) Production Contract	1	2021	3	2021
Common Display System (CDS): T116 (MK6 MOD1) Production Contract	1	2021	3	2025