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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 The Joint Staff **Date:** March 2024

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604826J I <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	147.019	28.199	28.517	29.706	-	29.706	30.451	29.218	29.845	31.830	-	-
001: <i>C5 Assessments and Analyses</i>	74.084	9.780	7.483	8.512	-	8.512	9.036	8.706	8.858	9.302	-	-
002: <i>C5 Capability Development</i>	41.706	11.451	8.055	16.981	-	16.981	17.141	16.135	16.491	18.013	-	-
003: <i>Joint Fires C2 Interoperability</i>	31.229	6.968	3.919	4.213	-	4.213	4.274	4.377	4.496	4.515	-	-
004: <i>Joint All Domain Command and Control (JADC2)</i>	0.000	0.000	9.060	-	-	-	-	-	-	-	-	-

**Note**

For FY 2023 and FY 2024, the Department leveraged this program and increased investment to include foundational CJADC2 development activities conducted within existing projects. In FY 2023, increased investments in CJADC2 were applied and executed to accelerate the level of effort in the existing projects and was described as such in the R2 exhibit. In FY 2024, a new project 004 (JADC2) was created for the increase of investment in CJADC2 efforts. In FY 2025 – 2029, Project 004 (JADC2) funds are realigned to the program’s baseline projects for planned execution.

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

Lead command, control, communications, computers, and cyber (C5) assessments, analyses, capability development, and joint fires command and control (C2) interoperability efforts required to achieve an effective, integrated, and interoperable joint force. Efforts include C5 requirements determination, C5 architectures development and integration, C5 data standardization, joint fires C2 interoperability, and C5 integration and interoperability assessments. The Joint Staff is the DoD lead for the design and integration of Combined Joint All-Domain Command & Control (CJADC2) capabilities and development efforts across the Department. The Joint C5 program is the Joint Staff focal point for this responsibility. The Joint C5 R&D projects collectively provide the analytical basis and action arm of the CJADC2 Cross Functional Team (CFT) working groups charged with execution of the DoD CJADC2 Strategy, Implementation, and Campaign Plans.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 The Joint Staff	<b>Date:</b> March 2024
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604826J <i>I Joint C5 Capability Development, Integration, and Interoperability Assessments</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	28.199	28.517	19.430	-	19.430
Current President's Budget	28.199	28.517	29.706	-	29.706
Total Adjustments	0.000	0.000	10.276	-	10.276
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Funding Increase	-	-	10.276	-	10.276

**Change Summary Explanation**

Program increase to accelerate the development of Combined Joint All-Domain Command and Control (CJADC2) capabilities.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 The Joint Staff **Date:** March 2024

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 001 / C5 Assessments and Analyses
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
001: C5 Assessments and Analyses	74.084	9.780	7.483	8.512	-	8.512	9.036	8.706	8.858	9.302	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

As the DoD lead for the integration of Combined Joint All-Domain Command and Control (CJADC2) capabilities and development efforts, conduct analysis and assessment activities to inform and enhance joint warfighter capabilities in support of national security requirements. Provide timely, facts-based findings and recommendations to DoD decision-making processes that validate operational requirements and fund interoperable capabilities. Conduct interoperability assessments and analyses that evaluate capability and interoperability of fielded and emerging command, control, communications, computers, and cyber (C5), and systems in response to operational issues and shortfalls. Conduct integration assessment efforts focused on emerging capabilities in wireless devices and security, operational and tactical command and control, networking, satellite communications, advanced secure digital datalinks, and allied/coalition data exchanges.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2023	FY 2024	FY 2025
<b>Title:</b> C5 Assessments and Analyses	9.780	7.483	8.512
<p><b>Description:</b> Support the Chairman's statutory requirement to advise the Secretary of Defense on development of joint command, control, communications and cyber capability, including the design, integration and interoperability of such capabilities through requirements, integrated architectures, data standards and assessments. Also supports the Chairman's focus area of improving joint and Combined warfighting capability and the Secretary's line of effort to strengthen alliances and attract new partners. Interoperability is assessed and integrated solutions are developed to improve C5 system performance by providing recommendations based on operational architectures and evolving standards and data products.</p> <p><b>FY 2024 Plans:</b> Support National Military Strategy and Globally Integrated Operations (GIO) by conducting quantifiable analysis, assessment, and integration activities that inform and enhance Joint and Combined warfighter capabilities and interoperability. Activities utilize actual and replicated operational environments and networks to conduct capability development, support joint and coalition experimentation, and support acquisition and systems employment decisions. Continue to address warfighter needs across all domains by conducting activities in rapidly reconfigurable Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) laboratories replicating joint and coalition system of systems operational environments as well as in operational venues such as exercises. Employ a deployable assessment capability supporting the instrumentation, collection and analysis of decision quality data for joint command, control, and battle management operations at echelon, to include deployed field environments. Projects include:</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>Bold Quest (BQ) Coalition Interoperability Demonstrations – Support the design, planning, and execution of BQ events at international venues, which address: close air support, Mission Partner Environment (MPE) / Federated Mission Networking (FMN), Identification, Friend or Foe (IFF) testing, and cyber effects on operations for U.S. forces and coalition partners, i.e., SABRE (Secret And Below Releasable Environment) and Fully Networked Command and Control Capability (FNC3) demonstrations. Support includes accredited exercise networks, associated Command and Control (C2) systems, and data collection and analysis capabilities.</p> <p>Assess Combatant Command Coalition mission networks, e.g., INDOPACOM Joint Fires Network (JFN) capability development and coalition environment, as well as CENTCOM Collaboration Partner Environment (CPE). CPE is a single environment that allows for information sharing with partners supporting and enabling Combined Joint All-Domain Command and Control (CJADC2).</p> <p>Co-lead DoD Sponsored Global Information Dominance Experiment (GIDE) series. Joint Staff and Combatant Commands test the effectiveness of evolving C2 concepts. Integrate, refine, and accelerate the Joint and Combined warfighting capabilities. Capabilities include command and control of Joint Precision Long-Range Fires, contested logistics, integrated air and missile defense, and space support to targeting.</p> <p>\$1.272M of FY 2024 Project Code 004 (\$9.060M) funds targeted investments for foundational CJADC2 assessments and analyses within this level of effort.</p> <p><b>FY 2025 Plans:</b> Support National Military Strategy and Globally Integrated Operations (GIO) by conducting quantifiable analysis, assessment, and integration activities that inform and enhance Joint and Combined warfighter capabilities and interoperability. Activities utilize actual and replicated operational environments and networks to conduct capability development, support joint and coalition experimentation, and support acquisition and systems employment decisions. Continue to address warfighter needs across all domains by conducting activities in rapidly reconfigurable Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) laboratories replicating joint and coalition system of systems operational environments as well as in operational venues such as exercises. Employ a deployable assessment capability supporting the instrumentation, collection and analysis of decision quality data for joint command, control, and battle management operations at echelon, to include deployed field environments. Projects include:</p> <p>Bold Quest (BQ) Coalition Interoperability Demonstrations</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>– Support the design, planning, and execution of international BQ demonstrations that address: close air support, Mission Partner Environment (MPE)/Federated Mission Networking (FMN), Identification, Friend or Foe (IFF) testing, and cyber effects on operations for U.S. forces and coalition partners, i.e., SABRE (Secret And Below Releasable Environment) Initial Operational Capability in the Fourth Quarter FY 2025, FNC3 (Fully Networked Command and Control Capability) demonstrations.</p> <p>– Enable evaluation of coalition combat network interoperability (e.g. coordinated multi-domain targeting, and Artillery Systems Cooperation Activities) and battle management systems/processes with their associated Command and Control (C2) systems (e.g. Advanced Battle Management System)</p> <p>- Leverage existing combatant command large scale exercises (e.g. Northern Edge, Scarlet Dragon) and capitalize on development/operational weapon system tests to reduce overall risk to fielding combat capabilities.</p> <p>Assess the federation of Combatant Command and allied operational mission networks.</p> <p>Co-lead DoD Sponsored Global Information Dominance Experiment (GIDE) series. Integrate, refine, and accelerate the Joint and Combined warfighting capabilities. Capabilities include command and control of Joint Precision all-domain Fires, Joint Battle Management, contested logistics, integrated air and missile defense, space support to targeting, and synchronized non-kinetic effects.</p> <p>Includes \$1.012M for targeted investment in foundational CJADC2 assessments and analyses.</p> <p><b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> FY 2024 project baseline funding of \$7.483M, with \$1.272M realigned from Project 004, totals \$8.755M. The net increase of \$1.029M reflects the realignment and economic adjustments.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	9.780	7.483	8.512

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>
<b>D. Acquisition Strategy</b> Biannual review of C4/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort, Acquisition Strategy and current Execution.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

<b>Joint C5I</b>																												
C5 Assessments and Analyses																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Joint C5I</b>				
C5 Assessments and Analyses	1	2025	4	2025

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments				<b>Project (Number/Name)</b> 002 / C5 Capability Development			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
002: C5 Capability Development	41.706	11.451	8.055	16.981	-	16.981	17.141	16.135	16.491	18.013	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Command, Control, Computers, Communications, Cyber (C5) capability development functions as the DoD requirements lead for the joint command and control family of programs, Joint cyber, and requirements lead for mission partner environment (MPE). The program also develops joint context, containers, components, and code (C4) architectures, joint common systems functions, joint mission threads, leads analysis and reviews architectures and standards in joint capability development systems. C5 development enables warfighter access to authoritative data sources and improves data interoperability by establishing common command and control (C2) data and service standards.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> C5 Capability Development	11.451	8.055	16.981
<p><b>Description:</b> Lead C2 capability development and integration to achieve an interdependent joint force. Supports Chairman's focus to improve joint warfighter capability and enhance global integration. This will be accomplished through five focus areas: capability development, C5 architectures, data and services, coalition interoperability, and joint experimentation.</p> <p><b>FY 2024 Plans:</b>                      Capability Development - Analyze/coordinate out-year Command and Control (C2) integrated priority lists, capability gaps, Posture Reviews, and CJADC2 Implementation Plan and Campaign Plan Line of Effort (LOE) requirements. Develop &amp; deliver a CJADC2 Capability Needs Database providing DoD visibility of Joint C2 requirements. Co-lead CJADC2 Implementation Plan LOE 2 (Human Element – Doctrine, Organization, Training, Materiel, Leadership Awareness, Personnel, Facilities &amp; Policy (DOTMLPF-P)). Co-lead GIDE series planning and integration. Develop CJADC2 Capability Portfolio Management Reviews (CPMRs) and an overarching CAPSTONE CJADC2 Initial Capabilities Document (ICD). Support the development of C2 Joint Warfighting Concepts (JWC) and Concept-Required Capabilities (CRC). Lead the JWC C2 functional planning group for C2 operationalization and implementation.</p> <p>C5 Architectures - Provide architecture, mission thread, and mission-based analysis and analysis products as required to support the Chairman's directed focus areas. Transition Mission Enabled Solutions Assessment (MESA) to ADVANA. Continue development of CJADC2 Reference Design and the CJADC2 baseline. Update the Joint Common Service/System Function List and Warfighter Mission Area (WMA) Architecture Development Standards to improve WMA architecture integration and interoperability. Continue to improve and expand the quality and amount of architecture information and data available for</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

analysis and reuse. Conduct analyses and develop mission-based architectures and metrics for Joint Capabilities Integration and Development System (JCIDS) C5 capability requirement documents, Integrated Acquisition Portfolio Reviews (IAPRs), Strategic Portfolio Reviews (SPRs), Capability Portfolio Management Reviews, CJADC2 Campaign Plans.

Data and Standards – Develop, promote, and integrate common enterprise data and services requirements, standards, technical specifications, and policy, including enterprise data management to improve Combined Joint All Domain C2 interoperability. Perform and lead proof of concept activities, including cloud-based data lakes that enable standardization of the NIEMOpen data exchange model and the North Atlantic Treaty Organization (NATO) Core Data Framework (NCDF) with selected Combined Joint All Domain C2 communities of interest, including robotics and autonomous systems. Conduct at least one Multi-Domain Operations proof of concept demonstration with NATO with interested Services, Agencies and coalition partners to improve warfighter interoperability and enhance operational effectiveness. Lead, align and standardize emerging Combined Joint All Domain C2 tactical data link, symbology (including cyber symbology) and messaging standards to support common enterprise-level information sharing. Support standardization of common warfighter Identity Access Management, robust cyber security, standardized interfaces and common data tagging to promote Combined Joint All Domain C2 interoperability.

Coalition Interoperability - International lead for the Coalition Interoperability Assurance and Validation (CIAV) providing interoperability mission-based assessments across the Combatant Commands. Represent the Combatant Commands, Services and Agencies mission partner environment (MPE) Requirements. Continue to lead mission partner environment (MPE) demonstrations and implementation. Support coalition cyber priorities across DoD by co-leading the MPE cyber security efforts and supporting the federated mission networking (FMN) cyber security working group. Continue to shape North Atlantic Treaty Organization (NATO) FMN implementation to ensure it remains aligned with MPE, including related capability development. Provide support to the Combined Communications-Electronics Board (CCEB) to ensure interoperability among the Five Eyes nations (Canada, New Zealand, Australia, UK, and U.S.). Lead the U.S. C5I Standardization Agreements ratification. Co-lead the CJADC2 LOE 5 modernizing mission partner information sharing.

Joint Experimentation - Combatant Commands, Services, Agencies and Allies/Coalition partners are provided a laboratory, exercise and assessment venue for the warfighter and capability developer to identify and solve interoperability, integration, and cyber issues. Provide the CJADC2 Joint Demonstration Environment (JDE) for an integrated wide-area experimental network for the conduct of interoperability assessments and integration activities. Contribute to wargames, exercises and experiments that explore current and future warfighting C2 concepts with coalition partners including Mission Partner Environments.

FY 2023	FY 2024	FY 2025

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>\$7.788M of total FY 2024 Project Code 004 (\$9.060M) funds targeted investment for foundational CJADC2 capability development activities within this level of effort.</p> <p><b>FY 2025 Plans:</b>                      Capability Development - Analyze/coordinate out-year Command and Control (C2) integrated priority lists, capability gaps, Posture Reviews, and CJADC2 Implementation Plan and Campaign Plan LOE requirements that are foundational to CJADC2. Oversee &amp; sustain CJADC2 Capability Needs Database providing DoD visibility of Joint C2 requirements. Co-lead CJADC2 Implementation Plan LOE 2 (Human Element – Doctrine, Organization, Training, Materiel, Leadership Awareness, Personnel, Facilities &amp; Policy (DOTMLPF-P)). Co-lead GIDE series planning and integration. Develop CJADC2 Capability Portfolio Management Reviews (CPMRs) and manage CAPSTONE CJADC2 Initial Capabilities Document (ICD) execution. Support the development of C2 Joint Warfighting Concepts (JWC) and Concept-Required Capabilities (CRC). Lead the JWC C2 functional planning group for C2 operationalization and implementation.</p> <p>C5 Architectures - Provide architecture, mission thread, and mission-based analysis and analysis products as required to support the Chairman's directed focus areas. Transition Mission Enabled Solutions Assessment (MESA) to ADVANA. Continue development of CJADC2 Reference Design and the CJADC2 baseline. Update the Joint Common Service/System Function List and Warfighter Mission Area (WMA) Architecture Development Standards to improve WMA architecture integration and interoperability. Continue to improve and expand the quality and amount of architecture information and data available for analysis and reuse. Conduct analyses and develop mission-based architectures and metrics for Joint Capabilities Integration and Development System (JCIDS) C5 capability requirement documents, Integrated Acquisition Portfolio Reviews (IAPRs), Strategic Portfolio Reviews (SPRs), Capability Portfolio Management Reviews, and CJADC2 Campaign Plans in order to provide a common, mission-based joint and coalition design framework for the Department that includes mission partners and considers adversary actions.</p> <p>Data and Standards – Develop, promote, and integrate common enterprise data and services requirements, standards, technical specifications, and policy, including enterprise data management to improve Combined Joint All Domain C2 interoperability. Perform and lead proof of concept activities, including cloud-based data lakes that enable standardization of the NIEMOpen data exchange model and the North Atlantic Treaty Organization (NATO) Core Data Framework (NCDF) with selected Combined Joint All Domain C2 communities of interest, including robotics and autonomous systems. Conduct at least one Multi-Domain Operations proof of concept demonstration with NATO with interested Services, Agencies and coalition partners to improve warfighter interoperability and enhance operational effectiveness. Lead, align and standardize emerging Combined Joint All Domain C2 tactical data link, symbology (including cyber symbology) and messaging standards to support common enterprise-level information sharing. Support standardization of common warfighter Identity Access Management, robust cyber security,</p>			

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<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>standardized interfaces and common data tagging in order to guide and promote a DoD federated data environment for sharing information through interfaces and services to discover, understand and exchange data with partners across all domains, security levels and echelons. .</p> <p>Coalition Interoperability - International lead for the Coalition Interoperability Assurance and Validation (CIAV) providing interoperability mission-based assessments across the Combatant Commands. Represent the Combatant Commands, Services and Agencies mission partner environment (MPE) Requirements. Continue to lead mission partner environment (MPE) demonstrations and implementation. Support coalition cyber priorities across DoD by co-leading the MPE cyber security efforts and supporting the federated mission networking (FMN) cyber security working group. Continue to shape North Atlantic Treaty Organization (NATO) FMN implementation to ensure it remains aligned with MPE, including related capability development. Provide support to the Combined Communications-Electronics Board (CCEB) to ensure interoperability among the Five Eyes nations (Canada, New Zealand, Australia, UK, and U.S.). Lead the U.S. C5I Standardization Agreements ratification. Co-lead the CJADC2 LOE 5 modernizing mission partner information sharing in order to lead and shape the advancement of current and future C2 capabilities that will ensure Joint Force interoperability with mission partners across all warfighting domains.</p> <p>Joint Experimentation - Combatant Commands, Services, Agencies and Allies/Coalition partners are provided a laboratory, exercise and assessment venue for the warfighter and capability developer to identify and solve interoperability, integration, and cyber issues. Provide the CJADC2 Joint Demonstration Environment (JDE) for an integrated wide-area experimental network for the conduct of interoperability assessments and integration activities. Contribute to wargames, exercises and experiments that explore current and future warfighting C2 concepts with coalition partners including Mission Partner Environments in order to support the assessment and integration of emerging technologies and proven CJADC2 solutions into the joint operational environment to address joint warfighting concept near, mid, and long-term requirements.</p> <p>Includes \$8.970M for targeted investment in foundational CJADC2 capability development activities.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> FY 2024 project baseline funding of \$8.055M, with \$7.788M from Project 004, totals \$15.843M. The net increase of \$8.926M reflects the realignment and economic adjustments.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		11.451	8.055	16.981
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

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

**Remarks**

**D. Acquisition Strategy**

Biannual review of Command, Control, Communications, Computers (C4)/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort, and Acquisition Strategy.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 The Joint Staff</b>			<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>	

FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
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

<b>C5 Capability Development</b>	
C5 Capability Development	

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b>C5 Capability Development</b>	
C5 Capability Development	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>C5 Capability Development</b>				
C5 Capability Development	4	2022	3	2024

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 The Joint Staff **Date:** March 2024

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 003 / Joint Fires C2 Interoperability
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
003: Joint Fires C2 Interoperability	31.229	6.968	3.919	4.213	-	4.213	4.274	4.377	4.496	4.515	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

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

As the DoD lead for the integration of Combined Joint All-Domain Command & Control (CJADC2) capabilities and development efforts, lead interoperability efforts across DoD and partner nations at the operational and tactical level for mission partner operations, fire support, combat identification (CID), and friendly force tracking (FFT) capabilities. Conduct joint fire support, joint close air support and CID-FFT action plans to fulfill CJCS-directed, General Officer/Flag Officer (GOFO) level responsibilities. Conduct Joint Fire Support Executive Steering Committee (JFS ESC) standardization team accreditation visits to U.S. and partner nation schoolhouses to ensure memorandum of agreement signatories are accomplishing schoolhouse training in compliance with the memoranda.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2023	FY 2024	FY 2025
<b>Title:</b> Joint Fires C2 Interoperability	6.968	3.919	4.213
<p><b>Description:</b> These efforts directly support Chairman, Joint Chiefs of Staff (CJCS) guidance to increase interoperability with allies and partners, to more effectively counter trans-regional threats. Supports Chairman's focus area of improving joint warfighting capability and the Secretary's line of effort to strengthen alliances and attract new partners. Execute Joint Staff-sponsored Bold Quest systems-of-systems interoperability assessment, including integration of cyber capabilities with command and control of conventional and Special Operations Force missions from a multinational perspective at the tactical level. Lead the Joint Fire Support Executive Steering Committee (JFS ESC), composed of Flag/General Officer representatives and supporting staffs from the U.S. Services, Special Operations Command, 30 joint fires international signatories, 22 Bold Quest partner nations, and 6 observer nations. Those observer nations now include Switzerland, Australia, Republic of Korea, Austria, and key Gulf State allies. Also lead the Combat Identification – Friendly Force Tracking Executive Steering Committee (CID-FFT ESC), focused on more effective and efficient combat operations and reduced potential for friendly fire incidents.</p> <p><b>FY 2024 Plans:</b> Plan and execute Joint Staff-sponsored international Bold Quest capability demonstration and assessment in conjunction with the GIDE series, focused on interoperability for joint and coalition fires underpinned by Mission Partner Environment (MPE) concepts, e.g., SABRE and Fully Networked Command, Control, and Communications (FNC3) capabilities. Bold Quest data and assessments inform U.S. and Partner Nation investment in multiple capability areas: combat identification, friendly force tracking, digitally aided close air support and fires, integrated air and missile defense (Mode 5 Identify Friend or Foe), coalition intelligence surveillance and reconnaissance, integrated interoperable simulations, and cyber. These efforts directly support the National</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>Military Strategy, the CJCS' global integration objectives and the Combatant Commanders conventional and SOF international engagement programs. Continue leading accreditation visits of current JFS ESC member programs and provide staff assistance visits for development of close air support-related training and certification programs. Continue leading the CID-FFT ESC and JFS ESC in order to address capability shortfalls/gaps, analyze and recommend integrated joint and coalition solutions to warfighter issues.</p> <p>No FY 2024 Project Code 004 (\$9.060M) funds allocated; baseline funding only.</p> <p><b>FY 2025 Plans:</b> Plan and execute Joint Staff-sponsored international Bold Quest capability demonstration and assessment in conjunction with the GIDE series, focused on interoperability for joint and coalition fires underpinned by Mission Partner Environment (MPE) concepts, e.g., SABRE and Fully Networked Command, Control, and Communications (FNC3) capabilities. Bold Quest data and assessments inform U.S. and Partner Nation investment in multiple capability areas: combat identification, friendly force tracking, digitally aided close air support and fires, integrated air and missile defense (Mode 5 Identify Friend or Foe), coalition intelligence surveillance and reconnaissance, integrated interoperable simulations, and cyber. These efforts directly support the National Military Strategy, the CJCS' global integration objectives and the Combatant Commanders conventional and SOF international engagement programs. Continue leading accreditation visits of current JFS ESC member programs and provide staff assistance visits for development of close air support-related training and certification programs. Continue leading the CID-FFT ESC and JFS ESC in order to address capability shortfalls/gaps, analyze and recommend integrated joint and coalition solutions to warfighter issues.</p> <p>Includes \$0.294M for targeted investment in foundational CJADC2 joint fires C2 interoperability activities.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The \$0.294M increase supports targeted investment in foundational CJADC2 joint fires C2 interoperability activities.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	6.968	3.919	4.213

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

**Remarks**

**D. Acquisition Strategy**  
Biannual review of C4/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort and Acquisition Strategy.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 003 / Joint Fires C2 Interoperability

FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
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

<b>Joint Fires C2 Interoperability</b>	
Joint Fires C2 Interoperability	

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b>Joint Fires C2 Interoperability</b>	
Joint Fires C2 Interoperability	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Fires C2 Interoperability</i></b>				
Joint Fires C2 Interoperability	4	2022	3	2024

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 The Joint Staff **Date:** March 2024

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 004 / Joint All Domain Command and Control (JADC2)
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
004: Joint All Domain Command and Control (JADC2)	0.000	0.000	9.060	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

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

Funding to execute the Joint Staff role as the action arm of the Combined Joint All - Domain Command and Control (CJADC2) Cross Functional Team (CFT). Although listed in 2024 as a separate project within the program for visibility of one-year investment increase to accelerate CJADC2 capabilities, these funds are executed within Projects 001 – 003 in accordance with their FY 2024 plans. For FY 2025 – 2029, Project 004 JADC2 funds internally realigned to Projects 001 – 003 as listed below to accurately reflect planned execution.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2023	FY 2024	FY 2025
<p><b>Title:</b> JADC2</p> <p><b>Description:</b> DoD lead for the integration of CJADC2 capabilities and development efforts via: C5 assessments and analyses; capability development, C4 architectures, data and services, coalition interoperability and integration, joint demonstration environment; and joint fires C2 interoperability.</p> <p><b>FY 2024 Plans:</b> As the DoD lead for the integration of Combined Joint All-Domain Command and Control (CJADC2) capabilities and development efforts: provide the joint hub for an integrated wide-area experimental network and conduct supporting interoperability assessments and integration activities in support of scheduled wargames, exercises and experiments that explore current and future warfighting C2 concepts with coalition partners including Mission Partner Environments; lead interoperability efforts across DoD and partner nations at the operational and tactical level for mission partner operations, fire support, combat identification (CID), and friendly force tracking (FFT) capabilities.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> FY 2024 funding of \$9.060M in this project internally realigned to accurately reflect planned execution: - \$1.272M to Project Code 001 - \$7.788M to Project Code 002</p>	-	9.060	-
<b>Accomplishments/Planned Programs Subtotals</b>	-	9.060	-

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

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Joint All Domain Command and Control (JADC2)</i>

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

**Remarks**

**D. Acquisition Strategy**

N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Joint All Domain Command and Control (JADC2)</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b><i>Joint All Domain Command and Control</i></b>	
Joint All Domain Command and Control	████████████████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 The Joint Staff		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Joint All Domain Command and Control (JADC2)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint All Domain Command and Control</i></b>				
Joint All Domain Command and Control	2	2024	3	2025