

UNCLASSIFIED

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

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support	R-1 Program Element (Number/Name) PE 0804768J I Joint Training, Exercise and Evaluation Program (JTEEP)
--	---

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	76.726	29.292	29.530	37.852	-	37.852	38.182	36.017	36.111	36.230	-	-
701: Air Force Joint National Training Capability (JNTC)	5.728	2.869	2.431	2.409	-	2.409	2.409	2.409	2.409	2.409	-	-
758: Joint National Training Capability (JNTC)	56.877	20.542	23.157	31.193	0.000	31.193	31.532	29.367	29.461	29.580	-	-
769: Joint Knowledge Development & Distribution Capability (JKDDC)	2.734	1.108	0.826	0.817	-	0.817	0.808	0.808	0.808	0.808	-	-
772: Navy Joint National Training Capability (JNTC)	6.301	3.042	2.578	3.165	-	3.165	3.165	3.165	3.165	3.165	-	-
773: Joint Interoperability and Data Link Training Center (JID-TC)	3.264	1.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
774: USMC Joint National Training Capability (JNTC)	1.822	0.636	0.538	0.268	-	0.268	0.268	0.268	0.268	0.268	-	-

Note

On May 21 2021 Secretary Austin signed a policy memo directing renaming of the CE2T2 program with the Joint Training Exercise and Evaluation Program (JTEEP) and that CE2T2 is to be used in Budgetary matters until the term CE2T2 could be retired.

A. Mission Description and Budget Item Justification

These programs support readiness of the joint force by creating a joint training environment to replicate the complex and changing operational environment. These investments directly support defense strategic guidance, Joint Operational Training Infrastructure strategy, and enhance joint warfighting readiness by building training capabilities that support the operational readiness of the joint force. The elements associated with this coordinated effort consist of:

JNTC: The mission of the Joint National Training Capability (JNTC) program is to advance joint capabilities and interoperability by concentrating on emerging joint training requirements through collective training using a managed set of globally distributed capabilities and activities. The program resources Service and Special Operations Forces joint training to improve interoperability and create realistic tactical and operational joint training. JNTC enables joint training for Combatant Commands and Services by developing joint training content and ensuring global distributed access. JNTC enabling capabilities support Services and USSOCOM requirements to provide trained and ready joint forces in support of Combatant Command operational requirements. The program supports the Joint Operational

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 The Joint Staff		Date: April 2022
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0804768J <i>I Joint Training, Exercise and Evaluation Program (JTEEP)</i>	
<p>Training Infrastructure (JOTI). This program focuses efforts on improving readiness and creates a ready surge force consistent with Chairman’s guidance and will provide the means to train joint forces for the operationalization of the Joint Warfighting Concept.</p> <p>JKDDC: Joint Knowledge Development & Distribution Capability (JKDDC) Joint Knowledge Online (JKO) is the program of record for online joint training that implements and operationalizes the OSD training transformation JKDDC. JKO directly supports the JTEEP/CE2T2 program by developing, delivering, tracking, reporting, and supporting online training for Combatant Command exercises; Combatant Command required training; doctrinally based Joint Operations Core Curriculum; multinational, coalition, interagency training; OSD required training; and administration of the Senior Enlisted Joint Professional Military Education program. JKO expends RDT&E funding for leading edge technology review, market research, and integration to directly enhance various aspects of the training capability required to support Combatant Commanders, JTEEP/CE2T2 program objectives, and the Chairman's joint training guidance. JKO satisfies all requirements necessary to provide JTEEP/CE2T2 stakeholders with a distributed learning capability and access to web-based training content, learning resources, and distributed online training tools.</p> <p>Air Force Joint National Training Center (JNTC): Air Force JNTC funding provides a focused upgrade to develop models for space-based and cyber capabilities for integration into the Joint Live, Virtual, and Constructive (JLVC) environment as well supporting development of cross-domain solutions. Additionally, the Air Force invests in development of capabilities to enhance the rigor and fidelity of training for live and virtual members of joint training audiences.</p> <p>Navy JNTC: These funds enable Navy to develop unique maritime capabilities that integrate JLVC elements into a seamless joint training environment. The Navy program activities include conducting research, development, and integration of a common, realistic, joint and coalition, operational to tactical level training architecture to deliver individual and collective constructive joint training for use in Fleet Synthetic Training (FST) events, CCDR exercises, Ballistic Missile Defense Exercises (BMDEX) certification events, and BMD at Sea training events in support of CCDR’s training, deployment certification and operational requirements.</p> <p>JID-TC: Joint Interoperability and Data Link Training Center (JID-TC) supports 35 annual schoolhouse interoperability courses and up to six CAPSTONE Joint Interface Control Officer (JICO) courses tied to various Combatant Command (CCMD) joint exercises. JID-TC trains CCMD, Services and partner nations' operations center personnel on interoperability planning tasks required during contingencies and exercises in emerging mission areas such as joint fires, net enabled weapons, remotely piloted aircraft, integrated air and missile defense, and contested operations including secure internet with Link-16/TDL equipped major weapon systems and smart bombs. This program's R&D ended in FY21.</p> <p>Marine Corps JNTC: These funds provide USMC stability and risk reduction to a variety of ongoing joint efforts focused on improving the fidelity and realism of training simulation systems that prepare Marine Air Ground Task Force (MAGTF) units for deployment in support of CCMD operations. Efforts align with JOTI Strategy Goal #1, Improve the use of LVC training and support the Commandant’s planning guidance. The Marine Corps will continue to improve performance and support of the MAGTF Tactical Warfare Simulation in the areas of the JLVC-Multi- Resolution Federation (MRF) Bridge, common database terrain data ingestion, and JLVC interoperability. It will provide a single source training environment capability enabling users to select single or multiple play boxes (terrain data sets) for training simulation systems. Also developing an exercise planning, design, implementation, execution, and control tool.</p> <p>ADL: The Advanced Distributed Learning (ADL) initiative supports innovation and provides policy oversight to help the Services, Joint Staff, and partner agencies deliver training and education more efficiently and cost effectively. ADL provides policy oversight and coordination across DoD, coalition partners, and other Federal agencies</p>		

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 The Joint Staff	Date: April 2022
--	-------------------------

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0804768J <i>I Joint Training, Exercise and Evaluation Program (JTEEP)</i>
--	--

for distributed learning. This oversight supports interagency interoperability and promotes personnel readiness, ensuring the right people receive the right training at the right time. This program transferred to OSD P&R in FY21.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	29.292	29.530	0.000	-	0.000
Current President's Budget	29.292	29.530	37.852	-	37.852
Total Adjustments	0.000	0.000	37.852	-	37.852
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	37.852	-	37.852

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding, and incorporates the Department's economic assumptions. FY23 funding increases support Large Scale Global Exercises.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff										Date: April 2022		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>				Project (Number/Name) 701 / <i>Air Force Joint National Training Capability (JNTC)</i>			
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
701: <i>Air Force Joint National Training Capability (JNTC)</i>	5.728	2.869	2.431	2.409	-	2.409	2.409	2.409	2.409	2.409	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Air Force JNTC funding provides a focused upgrade to develop models for employment of cyber and 5th generation capabilities for integration into the Joint Live, Virtual, and Constructive (JLVC) environment as well as supporting development of cross-domain solutions. Additionally, the Air Force invests in development of capabilities to enhance the rigor and fidelity of training for live and virtual members of joint training audiences.

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

	FY 2021	FY 2022	FY 2023
Title: Air Force Joint National Training Capability (JNTC)	2.869	2.431	2.409
<p>Description: Air Force continues to develop joint enablers that drive realistic/effective training in contested and degraded environments across the JTEEP/CE2T2 enterprise. These capability enhancements provide a thinking and reactive Opposing Force (OPFOR) to challenge and engage both live and virtual Blue Forces using a combination of kinetic, non-kinetic, and cyber capabilities. Additionally, it continues to build upon prior investments in the cyber and space domains by improving fidelity of synthetic environments, ability to portray and control blue, red, and neutral entities and effects, interoperability with other Service, joint, and JLVC federation models and simulations, and support of JTEEP/CE2T2 mission partners. It also builds on prior investments in the One War Training System (OWTS) to enhance exercise control, safety, and feedback to training audiences in blended live and synthetic air and land domains.</p> <p>FY 2022 Plans:</p> <ol style="list-style-type: none"> Continue to develop capabilities for live OPFOR surface-to-air threats to engage virtual as well as live Blue Force (BLUFOR) aircraft. Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Further develop the capabilities of the Joint Electric Power Range (JEPR) to ensure the Joint community has access to a high-fidelity, configurable, targetable electrical power distribution grids in order to support training for Joint ISR analysts, EW systems, cyber operators and campaign planners while enhancing infrastructure attack capabilities and defensive measures. 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 701 / <i>Air Force Joint National Training Capability (JNTC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>3. Sustain development of and enhance new all-domain, full-spectrum operations capabilities against adversary-representative control systems (CS) which support adversary war making capabilities such as POL and chemical production, power generation/distribution, etc. Adversary CS replication provides enhanced planning and employment of integrated kinetic, EW, cyber, and ISR assets to achieve desired effects against adversary CS through all domains.</p> <p>4. Sustain development of an enhanced anechoic chamber to support controlled RF exercise events during all-domain Joint training enabling the execution of cost-effective, high-impact, timely and scoped training and exercising of integrated or converged technologies that will provide significant insight to the joint cyber/EW community and to the warfighter.</p> <p>FY 2023 Plans:</p> <p>1. Continue to develop capabilities for live OPFOR surface-to-air threats to engage virtual as well as live Blue Force (BLUFOR) aircraft.</p> <p>2. Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Further develop the capabilities of the Joint Electric Power Range (JEPR) to ensure the Joint community has access to a high-fidelity, configurable, targetable electrical power distribution grids in order to support training for Joint ISR analysts, EW systems, cyber operators and campaign planners while enhancing infrastructure attack capabilities and defensive measures.</p> <p>3. Sustain development of and enhance new all-domain, full-spectrum operations capabilities against adversary-representative control systems (CS) which support adversary war making capabilities such as POL and chemical production, power generation/distribution, etc. Adversary CS replication provides enhanced planning and employment of integrated kinetic, EW, cyber, and ISR assets to achieve desired effects against adversary CS through all domains.</p> <p>4. Sustain development of an enhanced anechoic chamber to support controlled RF exercise events during all-domain Joint training enabling the execution of cost-effective, high-impact, timely and scoped training and exercising of integrated or converged technologies that will provide significant insight to the joint cyber/EW community and to the warfighter.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease in this program as funds were realigned to support the Secretary of Defense's Joint Training Infrastructure Goals in other JTEEP/CE2T2 programs.</p>				
Accomplishments/Planned Programs Subtotals		2.869	2.431	2.409

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff	Date: April 2022
---	-------------------------

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 701 / <i>Air Force Joint National Training Capability (JNTC)</i>
--	--	--

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff										Date: April 2022		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				Project (Number/Name) 758 / Joint National Training Capability (JNTC)			
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
758: Joint National Training Capability (JNTC)	56.877	20.542	23.157	31.193	0.000	31.193	31.532	29.367	29.461	29.580	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Investment in the Joint National Training Capability (JNTC) program enables Service and Combatant Commands to train as they operate as part of the overall Joint Force. JNTC provides the technical standards, architecture, and development processes required to integrate/link joint training enablers in programs across the Department of Defense. The capabilities enable simultaneous training at scale, with aggregation of training audiences at the Combatant Command, Joint Task Force, Component Command headquarters, and Service tactical levels. The funding also supports modernization of the Joint Training Environment (JTE) through a Modular Open Systems Architecture (MOSA) approach to include development of a cloud-enabled, web-accessible Joint Training Tool (JTT) that supports all phases of an exercise (planning and design, execution, and AAR). The JTT will increase warfighter access to semi-automated training enablers within the Joint Training Synthetic Environment (JTSE). The JTT will also modernize the automation the Joint Training System (JTS) by incorporating current Joint Training Information Management System (JTIMS) capability, with a focus on data centrality, as outlined in the DoD Data Strategy. JNTC enables the Department of Defense to train the Joint Force on the operationalization of the current and future Joint Warfighting Concept, and provides more effective training by providing capabilities that replicate the contemporary and future operating environment. This program will implement the goals listed in the Joint Operational Training Infrastructure (JOTI).

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

	FY 2021	FY 2022	FY 2023
Title: Joint National Training Capability (JNTC)	20.542	23.157	31.193
<p>Description: JNTC provides the technical standards, architecture, and development processes required to integrate/link joint training enablers in programs across the Department of Defense. The capabilities enable simultaneous training at scale, with aggregation of training audiences at the Combatant Command, Joint Task Force, Component Command headquarters, and Service tactical levels. The funding also supports modernization of the Joint Training Environment (JTE) through a Modular Open Systems Architecture (MOSA) approach to include development of a cloud-enabled, web-accessible Joint Training Tool (JTT) that supports all phases of an exercise (planning and design, execution, and AAR). The JTT will increase warfighter access to semi-automated training enablers within the Joint Training Synthetic Environment (JTSE). The JTT will also modernize the automation the Joint Training System (JTS) by incorporating current Joint Training Information Management System (JTIMS) capability, with a focus on data centrality, as outlined in the DoD Data Strategy.</p> <p>FY 2022 Plans:</p> <p>1. Expand capability and use of cloud-based, web-enabled JTT exercise design and planning services as the primary tool supporting Tier 1 and Tier 2 joint training exercise, and enabling synchronization of linked Tier 3 and Tier 4 exercises.</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 758 / <i>Joint National Training Capability (JNTC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
2. Plan approach for and begin development of current JTIMS capability within JTT. 3. Develop initial capabilities within planned persistent simulation service. 4. Enhance joint simulation (within JLVC) to keep pace with operational environment changes (annual requirement). 5. Support the Joint Operational Training Infrastructure goals. FY 2023 Plans: 1. Expand capability of cloud-based, web-enabled JTT exercise design and planning and execution modules, furthering use as the primary tool supporting Tier 1 and Tier 2 joint training exercise, and enabling synchronization of linked Tier 3 and Tier 4 exercises. 2. Continue development of JTIMS capability within JTT. . 3. Develop additional capability within planned persistent simulation service of web-enabled, modular JTT and test against first CCMD use-cases. 4. Enhance joint simulation (within JLVC) to keep pace with operational environment changes (annual requirement). 5. Support the Joint Operation Training infrastructure goals. FY 2022 to FY 2023 Increase/Decrease Statement: Increases in FY23 to support the Secretary of Defense’s Joint Training Infrastructure Goals.				
Accomplishments/Planned Programs Subtotals		20.542	23.157	31.193
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff										Date: April 2022		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				Project (Number/Name) 769 / Joint Knowledge Development & Distribution Capability (JKDDC)			
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
769: Joint Knowledge Development & Distribution Capability (JKDDC)	2.734	1.108	0.826	0.817	-	0.817	0.808	0.808	0.808	0.808	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Knowledge Online (JKO) is the DoD unique and authoritative source for online joint training. JKO is tasked to develop a DoD enterprise-wide, joint individual training toolkit of web-enabled individual and small group training products, services, and enabling training technology. Products and services are developed in response to OSD program goals, CJCS training guidance, Joint Staff training priorities, and JKO stakeholders (Combatant Commands, Services, Combat Support Agencies, Interagency, and multinational partners) prioritized training requirements. JKO supports a career-long joint learning continuum, joint professional military education, and tailored common training standards to Service members on tasks that are jointly executed. JKO's research and development will improve all components of the Joint Total Learning Architecture (JTLA) including:

1. JKO Learning Management System (LMS): Development and enhancement is required to integrate advanced individual and staff training technologies and methodologies with larger scale, collective training exercises, and modernize military training capability with a DoD enterprise-wide online training toolkit. There are currently over 4.5 million registered users of the JKO LMS.
2. JKO Course Builder: JKO's Course Builder is a separate component used for organizations to develop online content by both internal and external joint enterprise teams. Course Builder mitigates the need to have programmer's code Shareable Content Object Reference Model (SCORM) standards into content with automation that promotes fiscal efficiency as well as operational responsiveness. Course Builder will advance to support new JKO Content Development techniques including responsive design, micro-learning, parallax scrolling and adaptive learning methodology.
3. Small Group Scenario Trainer (SGST) desktop modeling and simulation based training: This JKO capability trains and prepares thousands of military and civilian personnel deploying to Combatant Command theaters of operation prior to serving in their assigned Combined/Joint Task Force (C/JTF) billets. JKO integration of SGST simulation exercise scenarios and prerequisite JKO courses significantly enhance blended learning training support to large-scale, collective training exercises.
4. JKO Virtual Classroom (VC LASS): JKO's new virtual classroom, or VCLASS, meets the need for an enhanced distributed learning capability with the introduction of a collaborative learning environment. VCLASS is a customizable platform within JKO's architecture and that provides JKO elevated users the tools to meet the unique needs of DoD's training and education audience by providing online/blended course support with syllabus, messaging, gradebook, resources, announcements and synchronous instructional forums.

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

	FY 2021	FY 2022	FY 2023
Title: Joint Knowledge Development & Distribution Capability (JKDDC)	1.108	0.826	0.817

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 769 / <i>Joint Knowledge Development & Distribution Capability (JKDDC)</i>

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

Description: Joint Knowledge Online (JKO) advance technology initiatives primarily include the JKO Learning Management System (LMS) application, Course Builder, Small Group Scenario Trainer (SGST) desktop modeling and simulation based training capability, and Virtual Classroom, training applications. These capabilities increase access to, and facilitate the training and preparation of hundreds of thousands of military and civilian personnel deploying to Combatant Command (CCMD) theaters of operation prior to serving in their assigned Joint and Combined/Joint Task Force (C/JTF) billets. JKO LMS development and enhancements are required to develop, host, deliver, track, report and support students' completions, progress and survey results more effectively and efficiently. C/JTF "battle staffs" and combatant command (CCMD) personnel will be better trained, as individuals and as staffs, based on joint courses, SGST, VCLASS development, and implementation throughout the joint training enterprise.

FY 2022 Plans:

Continue to integrate and expand the virtual classroom (VC LASS) open source capability (Sakai) into the Global Content Distribution System (GCDS) and the JKO LMS suite of tools for synchronous (live) and asynchronous instructor led training. Integrate JTLA for component tools such as LMS, Coursebuilder, SGST, and VCLASS in support of advanced content and development techniques such as micro-learning, parallax scrolling, and Adaptive Learning Methodology. Continue extension of a micro learning technology , xAPI adaptation, Learning Record Store and Adaptive Learning Methodology to increase personalization capability of learning content. Increasing personalization capability delivers self-regulated micro-learning training that is designed to be engaging, usable and practical, allowing individuals to quickly access desired learning content whenever an opportunity arises. As DoD organizations increase training via DL opportunities, the methodologies of developing and delivering DL must be cutting edge, timely and optimize the learning experience of the joint warfighter. JKO content development advancements are allowing individuals to quickly access desired learning content whenever an opportunity arises. Continue to build out FVEY access and integrate JWICS military networks.

FY 2023 Plans:

Continue to integrate and expand the virtual classroom (VCLASS opensource capability (Sakai) into the Global Content Distribution System (GCDS) and the JKO LMS suite of tools for synchronous (live) and asynchronous instructor-led training. Integrate JTLA for component tools such as LMS, Coursebuilder, SGST, and VCLASS in support of advanced content and development techniques such as micro-learning, parallax scrolling, and Adaptive Learning Methodology. Continue extension of micro learning technology, xAPI adaptation, Learning Record Store and Adaptive Learning Methodology to increase personalization capability of learning content. Increasing personalization capability delivers self-regulated micro-learning training that is designed to be engaging, usable and practical, allowing individuals to quickly access desired learning content whenever an opportunity arises. As DoD organizations increase training via DL opportunities, the methodologies of developing and delivering DL must be cutting edge, timely and optimize the learning experience of the joint warfighter. JKO content development

FY 2021	FY 2022	FY 2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 769 / <i>Joint Knowledge Development & Distribution Capability (JKDDC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>advancements are allowing individuals to quickly access desired learning content whenever an opportunity arises. Continue to build out FVEY access and integrate JWICS military networks.</p> <p><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Adjustments in FY23 to support the Secretary of Defense’s Joint Training Infrastructure Goals.</p>				
Accomplishments/Planned Programs Subtotals		1.108	0.826	0.817
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff										Date: April 2022		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				Project (Number/Name) 772 / Navy Joint National Training Capability (JNTC)			
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
772: Navy Joint National Training Capability (JNTC)	6.301	3.042	2.578	3.165	-	3.165	3.165	3.165	3.165	3.165	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

These funds enable the Navy to develop unique maritime capabilities that integrate joint live, virtual, and constructive elements into a seamless joint training environment. The Navy program activities include conducting research, development, and integration of a common, realistic, joint and coalition, operational to tactical level training architecture to deliver individual and collective constructive joint training for use in Fleet Synthetic Training (FST) events, Combatant Commander (CCDR) exercises, Ballistic Missile Defense Exercises (BMDEX) certification events, and BMD at Sea training events in support of CCDR's training, deployment certification and operational requirements.

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

	FY 2021	FY 2022	FY 2023
Title: Navy Joint National Training Capability (JNTC)	3.042	2.578	3.165
<p>Description: Develops unique maritime capabilities that integrate joint live, virtual, and constructive (JLVC) elements into a seamless joint training environment. Using a scientific and phased approach that focuses on modeling ground, air, space, and maritime capabilities, this program researches new technologies and methods that provide a crucial technology-based foundation that supports all JNTC training transformation, JLVC federation, and Combatant Commanders exercise and engagement operations. This program provides a current and emerging multi-functional and multi-domain near-peer threat environment and associated warfighting challenges to stimulate Joint and Navy training audiences, enabling the Fleet Commander to certify deploying forces in a synthetic Joint training environment and Joint Force Maritime Component Commands (JFMCCs) to participate in realistic Combatant Commander Exercises.</p> <p>FY 2022 Plans:</p> <ol style="list-style-type: none"> 1. Provide development of new capability for integration with annual software release of the Navy Training Baseline (NTB) to enable tactics, techniques and procedures (TTP) development for contested environments and Ballistic Missile Defense (BMD). 2. Develop advanced models to support Navy and Joint Operational Level of War (OLW) exercises and tactical training; to include Anti-ship Cruise Missile (ASCM) defense, Counter-ISR, including unmanned system (UxS) defense, theater and regional BMD, and AEGIS Weapons System, maritime air, tactical air and unmanned sensor and weapon system capability upgrades. <p>FY 2023 Plans:</p> <ol style="list-style-type: none"> 1. Provide continued development of capability for integration with annual software release of the Navy Training Baseline (NTB) to enable tactics, techniques and procedures (TTP) development for contested environments and Ballistic Missile Defense (BMD). 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 772 / <i>Navy Joint National Training Capability (JNTC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
2. Continue to develop advanced models to support Navy and Joint Operational Level of War (OLW) exercises and tactical training; to include Anti-ship Cruise Missile (ASCM) defense, Counter-ISR, including unmanned system (UxS) defense, theater and regional BMD, and AEGIS Weapons System, maritime air, tactical air and unmanned sensor and weapon system capability upgrades. FY 2022 to FY 2023 Increase/Decrease Statement: Increase in FY 23 to support the Secretary of Defense's Joint Training Infrastructure Goals.				
Accomplishments/Planned Programs Subtotals		3.042	2.578	3.165
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff **Date:** April 2022

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)	Project (Number/Name) 773 / Joint Interoperability and Data Link Training Center (JID-TC)
--	---	---

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
773: Joint Interoperability and Data Link Training Center (JID-TC)	3.264	1.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This programs R&D ended in FY21.

A. Mission Description and Budget Item Justification

JID is the sole Department of Defense provider of joint interoperability training and Joint Interface Control Officer (JICO) production. JID trains CCMD, Services and partner nations' operations center personnel in mission areas such as joint fires, net enabled weapons, remotely piloted aircraft, integrated air and missile defense, and contested operations including secure internet with Link-16/TDL equipped major weapon systems and smart bombs. FY19 was the first year the JID received RDT&E funding in order to support the development of the JICO Simulator. The JICO Simulator will allow the JID to train students across the Services on the proper planning, management and execution of tactical data links (TDL) to fill the gaps for non-participating weapon systems missing in live exercises.

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

	FY 2021	FY 2022	FY 2023
Title: Joint Interoperability and Data Link Training Center (JID-TC)	1.095	-	-
Description: JICO Simulator will allow the JID to train students across the Services on the proper planning, management and execution of tactical data links (TDL). The simulator will allow the JID to build robust practice scenarios that students can execute fixing TDL architecture plans as necessary. This capability will not only create realistic training scenarios with the ability to inject multi-tactical data link network anomalies for training, but can also be used to support Combatant Command (CCMD) operations centers during planned exercises.			
Accomplishments/Planned Programs Subtotals	1.095	-	-

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff										Date: April 2022		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				Project (Number/Name) 774 / USMC Joint National Training Capability (JNTC)			
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
774: USMC Joint National Training Capability (JNTC)	1.822	0.636	0.538	0.268	-	0.268	0.268	0.268	0.268	0.268	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

These funds advance USMC training capabilities by providing stability and risk reduction to a variety of efforts focused on improving the fidelity and realism of training simulation systems. These systems are tailored to prepare operational Marine Air Ground Task Force (MAGTF) units for worldwide deployment in support of CCMD operations and engagements and are available to any organization or entity training via the JLVC federation of training tools. Based on the Commandant's planning guidance and JOTI Strategy Goal #1 and objectives, the Marine Corps will continue to improve performance of the MAGTF Tactical Warfare Simulation in the areas of the JLVC-multi-resolution federation bridge, common database terrain data ingestion, and JLVC interoperability. The MAGTF Tactical Warfare Simulation also provides a single source training environment capability that enables users to select single or multiple play boxes (terrain data sets) for training simulation systems easing the burden of requesting terrain, 3D models, and other geographic layers into a single source. In addition to developing an exercise planning, design, implementation, execution, and control tool, the MAGTF Tactical Warfare Simulation also enhances indigenous population modular service enabling exercise designers the ability to rapidly build new scenarios and incorporate human geography elements into the training scenarios.

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

	FY 2021	FY 2022	FY 2023
Title: Marine Corps Joint National Training Capability (JNTC)	0.636	0.538	0.268
<p>Description: Provides indigenous population (IP) concept development and integration, supporting both constructive and virtual training simulation systems by injecting "people packs" with realistic attributes and behaviors associated with specified regions. Full integration of terrain generation 3D models and objects into joint federation synthetic training environment eliminates the burden of requesting terrain data by the Services and CCMDs creates a single, shareable, repository across the federation. Initiates design and development of a joint exercise design and control tool enhancing connectivity across multiple platforms providing exercise planning, design and control within various joint simulation constructs. Addresses crucial integration of MAGTF Tactical Warfare Simulator (MTWS) into the Korean side of multi-resolution federation bridge supporting Ulchi Freedom Guardian covering training shortfalls in engineering obstacle simulations (minefields, chemical, anti-tank ditches, bridges, etc.).</p> <p>FY 2022 Plans: Continue development of pattern-of-life (POL) models that can insert synthetic opposing forces and civilian population into scenarios that will autonomously respond with native behaviors of that region providing synthetic adversaries that adapt to various training scenarios in multi-domain joint training.</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	Project (Number/Name) 774 / <i>USMC Joint National Training Capability (JNTC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>Provide a capability for all simulation systems to use the same standardized terrain datasets across training domains. Sustain pre-deployment training for operations while supporting the readiness of deployed forces, particularly those primarily focused on global response force readiness.</p> <p>Address crucial integration of MTWS into Korean side of multi-resolution federation bridge supporting USFK joint exercises covering shortfalls identified in addressing engineering obstacle simulations (minefields, chemical, anti-tank ditches, bridges, etc.).</p> <p>Continue design and development of a joint exercise design and control tool enhancing interoperability and connectivity across multiple platforms. Deliver sharper training environment definitions, assist with defining friendly, enemy, neutrals (including joint multinational and synthetic forces), and support to concurrent planning tools.</p> <p>Explore innovative ways to train for operations in strategically challenging trans-regional, multi-domain and multi-functional (TMM) environments. Use web-based cloud technologies to accelerate exercise development and execution.</p> <p>FY 2023 Plans: Continue to work on providing a capability for all simulation systems to use the same standardized terrain datasets across training domains. Sustain pre-deployment training for operations while supporting the readiness of deployed forces, particularly those primarily focused on global response force readiness.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease in FY 23 to support the Secretary of Defense's Joint Training Infrastructure Goals in other JTEEP/CE2T2 programs.</p>				
Accomplishments/Planned Programs Subtotals		0.636	0.538	0.268
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				