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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 The Joint Staff **Date:** March 2023

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	-	7.500	9.880	-	9.880	11.000	11.000	11.000	11.000	Continuing	Continuing
001: : <i>Rapid Defense Experimentation Reserve</i>	-	-	7.500	9.880	-	9.880	11.000	11.000	11.000	11.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Staff Rapid Defense Experiment Reserve (RDER) provides experimentation data management, data preservation and analysis. RDER efforts provides resources to document results and overall assessments of individual field experiments without which their potential warfighting impact will not be clear. The Department will be unable to assess progress towards implementation of the Joint Warfighting Concept capabilities from its investments.

In FY 2023 RDER resources are focused on the following:(1) Conducting Analysis, planning and management of the integration of JExNet with those data sources, processes, architectures, and implementations needed to support the RDER effort. Active participation within RDER working groups, integrated teams, planning, and events. (2) Ensuring RDER results can be integrated with other DoD experimentation and that RDER results will be available for ongoing DoD-wide analysis. Develop a federated experimentation dataset architecture which allows combining access to a multitude of existing experimentation datasets by applying the DoD Data Advantage strategy and implementation policies and plans to ensure that RDER results are included. (3) Collecting RDER user requirements, data, and facilitate pipeline connection and interoperability for data sources (Field Experiments, Risk Mitigation events, Mission Engineering Studies, USD R&E's Strategic Intelligence and Analysis Cell (SIAC) Emerging Disruptive Technology (EDT) wargames) and user platforms across RDER working groups and support these in the Joint Experimentation Affiliate Network (JExNet). (4) Development of analytic approaches to assess RDER experimentation (Hypothesis, Discovery or Demonstration) results that determine if Concept Required Capabilities (CRCs) have been met and evaluate progress towards attainment. (5) Improved continuity and refined support to RDER for proposal alignment assessments to concepts, and ongoing engagement with proposals throughout experimentation process. (6) Analysis of diverse types of experimentation data to draw conclusions and develop recommendations. This includes development of confidence levels and heuristics to convey credibility of RDER experimentally derived knowledge. (7) Selective focused Modeling and Simulation and analysis to complement other RDER analysis and experimentation. Provide improved confidence in the overall body of analysis.

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B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	0.000	0.000	9.880	-	9.880
Current President's Budget	0.000	7.500	9.880	-	9.880
Total Adjustments	0.000	7.500	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	10.000			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Congressional reduction of 2.5M in FY 2023. As this funding was moved from BA 04 PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments to BA 04 PE 0604331 / Joint Capability Experimentation, the total reduction of 5.0M was evenly split between these two program elements.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 The Joint Staff										Date: March 2023		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>				Project (Number/Name) 001 / : <i>Rapid Defense Experimentation Reserve</i>			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
001: : <i>Rapid Defense Experimentation Reserve</i>	-	-	7.500	9.880	-	9.880	11.000	11.000	11.000	11.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To facilitate rapid modernization of the force, the Rapid Defense Experimentation Reserve (RDER) initiative was established in the Defense Planning Guidance for Fiscal Year 2023-2027, to encourage multi-component experimentation through a campaign of learning. Services, Agencies, and other participating organizations are to identify “best of breed” capabilities developed among the DoD prototyping programs, and execute approved projects through large-scale experiments in order to implement the Joint Warfighting Concept (JWC). Organizations are to nominate proposals to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) that are multi-component – involving Joint Services, International partners and/or other government agencies – and link to one or more of the four key supporting concepts (“functional battles”) of the Joint Warfighting Concept: Joint Concept for Fires, Joint Concept for Command and Control, Joint Concept for Contested Logistics, and Joint Concept for Information Advantage.

The Department will implement multiple RDER experimentation series through projects with execution timelines ranging from one to two years. The USD(R&E) will review project progress, and nominate new series at least annually with the goal of quickly incorporating the most promising innovative prototypes into experiments, and promptly terminating projects that fail to achieve expectations. To support a disciplined approach to rapidly identify, incorporate and execute projects the Joint Staff J-7 will assess the degree of alignment for the proposals against the concepts for USD (R&E).

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

	FY 2022	FY 2023	FY 2024
Title: Rapid Defense Experimentation Reserve	-	7.500	9.880
Description: Experimentation outcomes will be designed to validate required capabilities enabling the JWC by evaluating and integrating prototyped technologies in operationally relevant, multi-domain environments.			
Experimentation results will facilitate Joint Staff J-7 analysis in the evaluation of the Joint Warfighting Concept, assist the Joint Requirements Oversight Counsel in requirements determination, and inform the Deputy’s Management Action Group to make budget decisions that effect changes throughout the Department.			
FY 2023 Plans: Joint all-domain experimentation, addressing high-need capability gaps across the Department.			
FY 2024 Plans:			

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>	Project (Number/Name) 001 / : <i>Rapid Defense Experimentation Reserve</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
Joint all-domain experimentation, addressing high-need capability gaps across the Department.				
<i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> Increased support to experimentation efforts. Moved guidance from PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments to PE 0604331J / Rapid Prototyping Program.				
Accomplishments/Planned Programs Subtotals		-	7.500	9.880
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 The Joint Staff **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>	Project (Number/Name) 001 / : <i>Rapid Defense Experimentation Reserve</i>
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
RDER	IA	Joint Experimentation : Pentagon : Joint Experimentation : Pentagon	-	-		7.500		9.880		0.000		9.880	Continuing	Continuing	-	
Subtotal			-	-		7.500		9.880		0.000		9.880	Continuing	Continuing	N/A	

Remarks
The program transferred from BA 04 0604826J to BA04 PE 0604331J.

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	7.500	9.880	0.000	9.880	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 The Joint Staff		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>	Project (Number/Name) 001 / : <i>Rapid Defense Experimentation Reserve</i>

FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
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

RDER	
RDER	[REDACTED]

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 The Joint Staff		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331J / <i>Rapid Prototyping Program</i>	Project (Number/Name) 001 / : <i>Rapid Defense Experimentation Reserve</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>RDER</i>				
RDER	4	2023	3	2025