Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Information Systems Agency	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*

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	255.027	18.883	35.995	24.991	-	24.991	20.241	15.616	15.823	16.139	Continuing	Continuing
JS1: *Electromagnetic Spectrum (EMS)*	255.027	18.883	35.995	24.991	-	24.991	20.241	15.616	15.823	16.139	Continuing	Continuing

Note

PE 0303153K was renamed to Program Executive Office (PEO) Spectrum

A. Mission Description and Budget Item Justification

Program Executive Office (PEO) Spectrum delivers the Electromagnetic Spectrum (EMS), which consists of frequencies that support worldwide military uses such as mobile phone networks, radios, navigation, and weapons. PEO supports EMS management through providing software capabilities, engineering, and analytical services to Combatant Commanders, the Department of Defense (DoD) Chief Information Officer (CIO), Military Services, and Defense Agencies. These capabilities mitigate effects from harmful EMS interference, such as interruption of access, and allow friendly forces to gain and maintain advantages. Accessing the spectrum enables decision making for friendly operations. Access to the radio frequency portion of the EMS provides United States and coalition forces near real-time electromagnetic spectrum data to support operational requirements critical to national security.

PEO Spectrum delivers capabilities to the DoD integrated spectrum plans and strategies to address current and future needs for DoD spectrum access. These capabilities support decision making related to warfighting, domestic sharing initiatives, and international spectrum treaties. PEO Spectrum also delivers enterprise spectrum management capabilities to execute spectrum business management processes.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	19.598	35.995	26.084	-	26.084
Current President's Budget	18.883	35.995	24.991	-	24.991
Total Adjustments	-0.715	0.000	-1.093	-	-1.093
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.715	-			
• Adjustment	-	-	-1.093	-	-1.093

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Information Systems Agency	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303153K *I PEO Spectrum*

Change Summary Explanation

Note: FY 2023 amount includes -$0.715 that was transferred for the Small Business Innovation Research (SBIR)/ Small Business Technology Transfer (STTR).

The decrease of -$1.093 in FY 2025 is due to reduction in requirements to develop new emerging spectrum technologies, spectrum capabilities within the Joint Ordnance Electromagnetic Environmental Effects (E3) Risk Assessment Database, and the number of prototype initiatives to be accomplished for PEO spectrum operations.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency			Date: March 2024
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303153K / *PEO Spectrum*	Project (Number/Name) JS1 / *Electromagnetic Spectrum (EMS)*	

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
JS1: *Electromagnetic Spectrum (EMS)*	255.027	18.883	35.995	24.991	-	24.991	20.241	15.616	15.823	16.139	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

PEO Spectrum designs, develops, and maintains DoD automated spectrum management software capabilities and databases. These databases are primary sources of information for DoD access to and use of the electromagnetic (EM) spectrum. PEO Spectrum provides technical measurement and analysis to support DoD spectrum policy decisions, ensuring DoD systems are compatible with other spectrum dependent systems operating within the same EM environment (EME). Additional efforts improve warfighter EM spectrum utilization through modernized software capabilities, models, and algorithms to enable engineering, analysis, and planning.

Support programs and portfolios include the DoD Electromagnetic Environmental Effects (E3) program, Global Electromagnetic Spectrum Information System (GEMSIS) portfolio, Electromagnetic Battle Management (EMBM) portfolio, and Emerging Spectrum Technology (EST) program.

- The DoD E3 program ensures incorporation of E3 control and spectrum supportability in IT and National Security Systems (IT/NSS).
- The GEMSIS portfolio enables spectrum access to support data links and decision making at all levels of the DoD.
- The EMBM portfolio delivers software and functions to gain situational awareness of activities in the battlespace.
- The EST program identities opportunities and risks associated with emerging spectrum-related technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DoD Electromagnetic Environmental Effects (E3) Program	2.068	3.134	3.200
Description: The DoD E3 Program supports the Joint Capabilities Integration and Development Systems (JCIDS) and other DoD acquisition processes to ensure E3 control and spectrum supportability engineering, analysis, compatibility assessments inform the development, testing, and procurement of IT/NSS. The E3 Program also supports the development of the Joint Ordnance E3 Risk Assessment Database (JOERAD) and Hazards of Electromagnetic Radiation to Ordnance (HERO) electromagnetic environmental effects surveys for DoD. • JOERAD provides real-time risk assessments to evaluate safety and identify equipment limitations in the operational EM environment, enabling operators to make critical decisions about hazards within the EM environments. Additionally, program managers and capability developers perform Spectrum Supportability Risk Assessments (SSRA) on all programs acquiring or incorporating spectrum-dependent systems or equipment (per DoDI 4650.1). These assessments review regulatory, technical, and operational spectrum and E3 risks and mitigations. • HERO conducts EM field strength measurements of spectrum-dependent systems, platforms, and facilities located or			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
installed where ordnance (artillery) is stored, transported, handled, and/or loaded. These surveys provide specific HERO mitigation guidance, such as power and frequency management, emission control, safe-separation distances, and operational restrictions to ensure ordnance safety while minimizing impacts to mission operational effectiveness. ***FY 2024 Plans:*** Key FY 2024 efforts include: • Continuing to conduct Joint Ordnance Commanders Group (JOCG) HERO Subgroup meetings to support the JOCG Executive Steering Committee and to develop/maintain the HERO susceptibility data records. • Continuing to conduct forward deployed base HERO surveys for the Combatant Commands (CCMDs), Services, and Continental United States (CONUS) based emitter surveys to validate the ordnance safety databases and update the DoD ordnance RF safety requirements. • Updating and developing EME system profiles that provide situational awareness of systems in operating environments. • Conducting monthly DoD E3 Integrated Product Team (IPT) Meetings. • Supporting DoD CIO, the Joint Staff, and other DoD Components with E3, spectrum, and hazards of EM radiation. • Reviewing and updating Joint Staff and DoD CIO JCIDS and Internet Service Provider (ISP) acquisition documents. • Providing E3 and Spectrum Supportability (SS) training to the DoD Components. • Developing and maintaining E3 and SS training curricula at the Defense Acquisition University. ***FY 2025 Plans:*** Key FY 2025 efforts include: • Continuing to conduct JOCG HERO Subgroup meetings to support JOCG Executive Steering Committee and to develop/maintain the HERO susceptibility data records. • Continuing to conduct forward deployed base HERO surveys for the CCMDs, Services, and CONUS based emitter surveys to validate the ordnance safety databases and update the DoD ordnance RF safety requirements. • Updating and developing EME system profiles that provide situational awareness of systems in operating environments. • Conducting monthly DoD E3 Integrated Product Team (IPT) Meetings. • Supporting DoD CIO, the Joint Staff, and other DoD Components with E3, spectrum, and hazards of EM radiation. • Reviewing and updating Joint Staff and DoD CIO JCIDS and ISP acquisition documents. • Providing E3 and Spectrum Supportability (SS) training to the DoD Components. • Developing and maintaining E3 and SS training curricula at the Defense Acquisition University. • Continuing to develop JOERAD and providing one version release, which will deliver additional analysis capabilities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase of +$0.066 from FY 2024 to FY 2025 is due to an inflationary/price adjustment.			
Title: Global Electromagnetic Spectrum Information System (GEMSIS)	0.860	0.616	0.609

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: GEMSIS delivers a portfolio of spectrum management software capabilities that: • Provide business process execution, • Provide situational awareness of friendly spectrum usage • Deconflict competing the mission requirements for spectrum use, and • Provide DoD and mission partners with direct online access to comprehensive, relevant, and trusted spectrum data. ***FY 2024 Plans:*** PEO Spectrum will develop an additional two version releases for Joint Spectrum Data Repository (JSDR) which will deliver additional analysis capabilities. ***FY 2025 Plans:*** PEO Spectrum will continue to develop an additional two version releases for Joint Spectrum Data Repository (JSDR) which will deliver additional analysis capabilities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of -$0.007 from FY 2024 to FY 2025 is due to a reduction in JSDR maintenance.			
Title: Electromagnetic Battle Management- Joint (EMBM-J) (EMS C2 Capabilities/Data Interface & Visualization, Planning/Mgt Tool) ***Description:*** The EMBM-J capability supports the DoD Electronic Warfare (EW) Strategy objective of fielding advanced EMBM capabilities. It also supports the DoD Electromagnetic Spectrum Superiority Strategy goal of increasing agility of DoD EMS operations by developing capabilities to preform near-real-time EMS operations (EMSO). EMBM-J capabilities: • Extract and analyze information from multiple sources across security levels. • Enable situational understanding of the Electromagnetic Operating Environment (EMOE). • Display the EMOE browser-based desktop environment and identify impacts of Electromagnetic Interference (EMI). • Enable a suite of tools that provide Situational Awareness (SA), Decision Support (DS), Command and Control (C2), and training. • Provide near real-time integration and display of foundational data and processed EMS feeds. These expanded capabilities are useful for Joint Electromagnetic Spectrum Operations (JEMSO) to access information from other related operational systems that provide a long-term solution for operational EMS planning, execution, and assessment capabilities. ***FY 2024 Plans:***	13.368	30.143	19.000

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Key FY 2024 efforts include: • Continue developing the EMBM-J mission capability in support of DoD's Electromagnetic Spectrum Strategy. Specifically: o Continuing EMBM-J (SA) releases, which expands upon the minimum viable capability release (MVCR) by providing additional data and functionality. o Developing EMBM-J DS prototype, which supports the EMS joint planning process. Original plan was to leverage Army's Electronic Warfare Planning Management Tool (EWPMT). However, EWPMT does not fully satisfy requirements. So, the plan has shifted to a prototype development. o Planning EMBM-J SA and DS integration. o Developing EMBM-J SA for Joint Worldwide Intelligence Communications System (JWICS). o Planning of EMBM-J training capability. o Planning for EMBM-J C2 Capability. ***FY 2025 Plans:*** Key FY 2025 efforts include: • Continue developing the EMBM-J mission capability in support of DoD's Electromagnetic Spectrum Strategy. Specifically: • Ramping down releases of EMBM-J SA which expands situational awareness within the EMS through providing additional data and functionality. • Delivering the EMBM-J DS prototype and begin production development supporting the EMS joint planning process. • Integrating EMBM-J SA and DS • Delivering EMBM-J SA onto Joint Worldwide Intelligence Communications Systems (JWICS). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease of -$11.143 from FY 2024 to FY 2025 was based on the assumption that EMBMJ-DS capability would be able to leverage the Army's EWPMT and realize significant cost savings. As Army's EWPMT does not satisfy requirements, DISA has shifted its effort to the EMBJ-DS prototype development to meet mission partner requirements. DISA will reprioritize its FY 2025 plans to focus on EMBMJ-SA and DS and will focus on C2 in FY 2026 and beyond.			
Title: Spectrum Strategic Planning & Engineering	2.587	2.102	2.182
Description: The Emerging Spectrum Technology (EST) program researches emerging spectrum-related technologies and evaluates applicability to improve future warfighter EM spectrum utilization. The EST improves EM spectrum utilization through technology innovation, investigating emerging technologies, and evaluating applicability. The goal of the EST program is to identify opportunities and risks associated with emerging technologies in the early stages of development, influence technology development to maximize DoD spectrum utilization, and to ensure spectrum policies incorporate optimal technology to meet DoD mission requirements.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
There is an increased focus on Dynamic Spectrum Access (DSA) capabilities. DSA is realized through wireless networking architectures and technologies to enable wireless devices to adapt spectrum access according to specific criteria. These specific criteria include policy constraints, spectrum availability, and application performance requirements. ***FY 2024 Plans:*** Key FY 2024 efforts include: • Continuing to support evaluation of future and existing spectrum analysis tools. • Continuing collaboration efforts with the Science and Technology community to develop and execute technology roadmaps and integration strategies. • Continuing to revise spectrum management architecture to reflect transforming spectrum operations in accordance with the new DoD EMS Spectrum Seniority Strategy. • Continuing to prototype capabilities that provide increased operational agility. • Continuing development initiatives such as roadmaps, standards, architectures, and business processes to exploit or minimize the impact of emerging technologies on DoD spectrum operations. ***FY 2025 Plans:*** Key FY 2025 efforts include: • Continuing to support the evaluation of future and existing spectrum analysis tools. • Continuing collaboration efforts with the Science and Technology community to develop and execute technology roadmaps and integration strategies. • Continuing to revise spectrum management architecture to reflect transforming spectrum operations in accordance with the new DoD EMS Spectrum Seniority Strategy. • Continuing to prototype capabilities that provide increased operational agility. • Continuing development initiatives such as roadmaps, standards, architectures, and business processes to exploit or minimize the impact of emerging technologies on DoD spectrum operations. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase of +$0.080 from FY 2024 to FY 2025 is due to an inflationary/price adjustment.			
Accomplishments/Planned Programs Subtotals	18.883	35.995	24.991

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• O&M, DW/PE 0303153K: *O&M, DW*	38.408	44.335	45.977	-	45.977	48.184	49.850	50.386	51.333	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

C. Other Program Funding Summary ($ in Millions)

Line Item	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

Remarks

D. Acquisition Strategy

Competition is used under existing Indefinite Delivery Indefinite Quantity (IDIQ) contracts. Task orders will be a mix of Firm Fixed Price (FFP) and Cost-Plus Fixed Fee (CPFF) as dictated by specific tasks accomplished.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services 1	C/FFP	Multi : Various	206.085	9.655	Jan 2023	18.976	Jan 2024	11.898	Jan 2025	-		11.898	Continuing	Continuing	Continuing
Technical Engineering Services 2	MIPR	Various : Various	36.513	8.733	Aug 2023	16.063	Feb 2024	10.897	Nov 2024	-		10.897	Continuing	Continuing	Continuing
		Subtotal	242.598	18.388		35.039		22.795		-		22.795	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	MIPR	JITC : Ft. Huachuca	2.312	-		-		0.000		-		0.000	0.000	2.312	-
		Subtotal	2.312	-		-		0.000		-		0.000	0.000	2.312	N/A

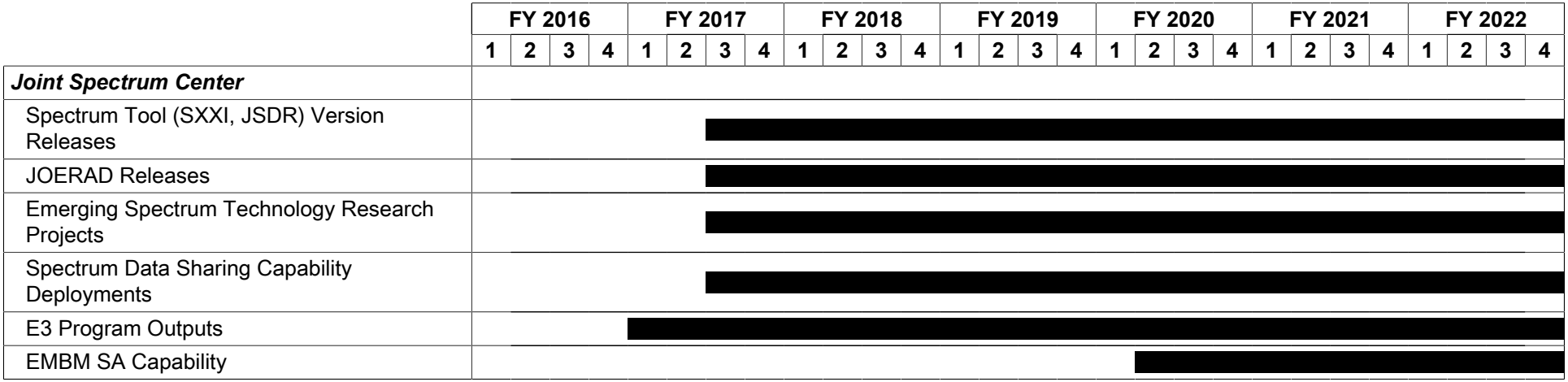
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	FFRDC	MITRE : Ft. Monmouth, NJ	10.117	0.495	Jul 2023	0.956	Nov 2023	2.196	Nov 2024	-		2.196	Continuing	Continuing	Continuing
		Subtotal	10.117	0.495		0.956		2.196		-		2.196	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	255.027	18.883		35.995		24.991		-		24.991	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*



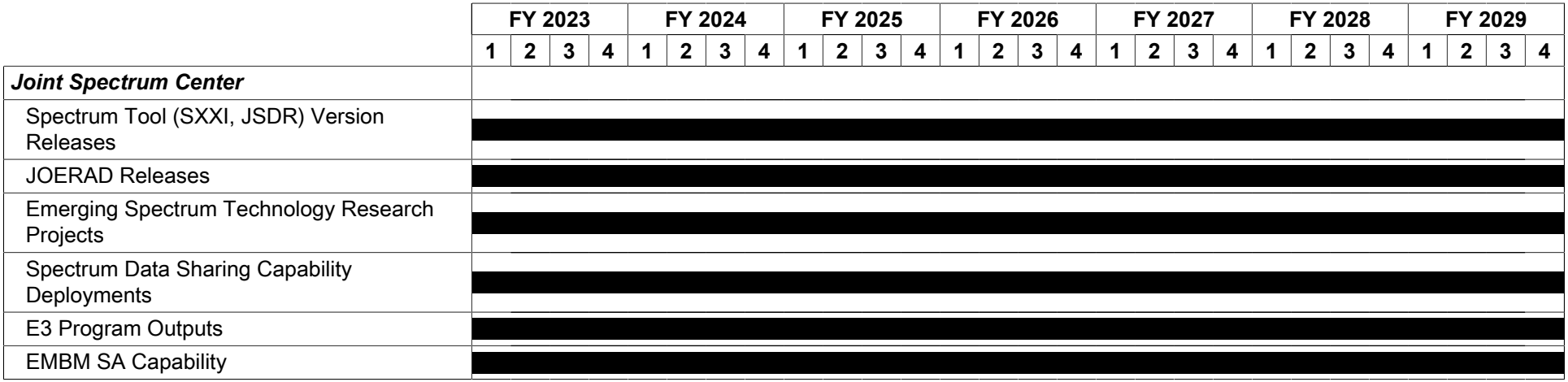


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Defense Information Systems Agency		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *PEO Spectrum*	**Project (Number/Name)** JS1 / *Electromagnetic Spectrum (EMS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Spectrum Center				
Spectrum Tool (SXXI, JSDR) Version Releases	3	2017	4	2029
JOERAD Releases	3	2017	4	2029
Emerging Spectrum Technology Research Projects	3	2017	4	2029
Spectrum Data Sharing Capability Deployments	3	2017	4	2029
E3 Program Outputs	1	2017	4	2029
EMBM SA Capability	2	2020	4	2029