Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	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 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

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	728.902	802.936	1,017.141	1,099.243	-	1,099.243	960.543	729.864	667.319	679.927	Continuing	Continuing
819: *Industrial Base Analysis and Sustainment*	728.902	802.936	1,017.141	1,099.243	-	1,099.243	960.543	729.864	667.319	679.927	Continuing	Continuing

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

The IBAS program element line is one component of a broader DoD investment strategy to build and strengthen the defense industrial base and secure U.S. supply chains. Residing within the Manufacturing, Capability Expansion and Investment Prioritization (MCEIP) Directorate, within the Office of the Assistant Secretary of Defense for Industrial Base Policy (OASD(IBP)), IBAS investments are used discretely and in combination with other DoD investment programs, such as MCEIP office Defense Production Act (DPA) Title III, to ensure collaborative and non-duplicative investment against critical defense industrial base and U.S. supply chain issues. The IBAS program element supports MCEIP office priorities through investment in prime and sub-tier suppliers to mitigate supply chain risks and eliminate production capacity bottlenecks, which align to EO 14017 and National Defense Industrial Strategy directives. IBAS program element investments are further synchronized across the department through coordination with other research and development programs, including but not limited to the Defense-Wide Manufacturing Science and Technology Program, residing in the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)).

Industrial Base Analysis and Sustainment (IBAS) Support was established in accordance with 10 USC Sec 4817 Industrial Base Fund. The ability of the United States to maintain readiness, and to surge and sustain in response to an emergency, directly relates to the capacity, capabilities, and resiliency of our manufacturing and defense industrial base and supply chains. IBAS authorities and flexibility are key components to build the industrial capabilities needed to innovate, produce, and sustain the weapon systems for today and tomorrow.

The IBAS Program element provides the Department with a unique capability to achieve the strategic aims of the 2022 National Defense Strategy, which calls for a strong, resilient, responsive and healthy U.S. Industrial Base (IB) that underpins current and future U.S. force readiness. This program element is uniquely positioned to improve the U.S. Industrial Base's competitiveness and ability to respond to the Department's needs by applying focused investments to 1) monitor and assess the current state of the IB, 2) address critical issues in the IB relating to urgent operational needs, 3) address supply chain vulnerabilities, and 4) support efforts to expand the Industrial Base.

Global supply chain disruptions have become more common, with recent events highlighting risks and vulnerabilities that undermine our national security. The February 24, 2022 report on Executive Order (E.O.) 14017, "America's Supply Chains", and the 2022 Industrial Base Capabilities (ICR) report, each outline strategic focus areas and enabling capabilities, their associated vulnerabilities, and provide recommendations to strengthen the defense industrial base.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	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 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

Management Process – To successfully execute the FY 2025 budget, the IBAS Program Office within the Office of the Assistant Secretary of Defense for Industrial Base Policy (OASD(IBP)) will oversee the health of the IBAS portfolio and project codes. The IBAS Program Office coordinates with a Military Department or defense agency technical lead to develop and execute an acquisition strategy and implementation plans for each strategic focus area.

FY 2025 strategic focus areas that will be executed in IBAS Project Code P819 include workforce, critical minerals, castings and forgings, kinetic weapons, energy storage and batteries and microelectronics. Descriptions of each focus area are included in the P819 R-2a.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	830.294	1,017.141	1,149.175	-	1,149.175
Current President's Budget	802.936	1,017.141	1,099.243	-	1,099.243
Total Adjustments	-27.358	0.000	-49.932	-	-49.932
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-27.275	-			
• Program Adjustments	-0.083	-	-1.100	-	-1.100
• Defense-Wide Topline Adjustment	-	-	-49.332	-	-49.332
• Additional RDT&E funding	-	-	0.500	-	0.500

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 819: *Industrial Base Analysis and Sustainment*		
Congressional Add: *Advanced Nanomaterials Manufacturing / Metal-organic frameworks*	5.000	-
Congressional Add: *Automated textile manufacturing*	7.500	-
Congressional Add: *Interdisciplinary Center for Advanced Manufacturing Systems*	10.000	-
Congressional Add: *Precision Optics Manufacturing*	10.000	-
Congressional Add: *Accelerated training in defense manufacturing*	5.000	-
Congressional Add: *Advanced Headborne Systems Manufacturing*	5.000	-
Congressional Add: *Carbon/Carbon Industrial Base Enhancement*	3.000	-
Congressional Add: *Career and Technical Education Pilot*	10.000	-
Congressional Add: *Digital Thread Manufacturing Demonstration*	8.000	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	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 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Congressional Add: *Resilient Manufacturing Ecosystem*	5.000	-
Congressional Add: *Ruggedized Transceivers*	7.500	-
Congressional Add: *Advanced Design and Engineering Capabilities for Small Businesses*	12.000	-
Congressional Add: *Advanced Electrochromic Manufacturing Program*	5.000	-
Congressional Add: *Advanced Thermoplastics Demonstration*	4.000	-
Congressional Add: *Aluminum Armor Plating*	1.500	-
Congressional Add: *Automated Integrated Metrology*	5.000	-
Congressional Add: *Demonstration Scale of REE from Coal Ash Technology*	30.000	-
Congressional Add: *Digital Design and Engineering Demonstration*	5.500	-
Congressional Add: *Expanding U.S. Defense Workforce*	20.000	-
Congressional Add: *Hybrid Manufacturing for Lightweight Defense Components*	5.000	-
Congressional Add: *Munitions Supply Chain Diversification*	20.000	-
Congressional Add: *On-Shore Advanced Microelectronic Packaging for Strategic Mission Enablement*	40.000	-
Congressional Add: *On-Shoring Navy Battery Cells*	10.000	-
Congressional Add: *Partnerships For Manufacturing Training Innovation*	7.000	-
Congressional Add: *Systems Engineering Technology (SET) Apprenticeship and Internship Program*	1.200	-
Congressional Add Subtotals for Project: 819	242.200	-
Congressional Add Totals for all Projects	242.200	-

Change Summary Explanation

FY 2025 decrease of $1.100 million is for an internal program adjustment and the decrease of $49.332 million is a defense-wide topline reduction.

FY 2025 increase from FY 2024 provides funding for efforts for Workforce, Critical Minerals, Castings and Forgings, Kinetics Capabilities (Hypersonics) and Microelectronics as follows:

Workforce: In collaboration with the Innovation Capability and Modernization (ICAM) Office and leveraging IBAS program funding, the Navy submarine industrial base task force plans to build on successes from other regional training systems (RTS) and start work in FY 2025 to establish a new RTS. This is an extension of ongoing joint OSD-Navy industrial workforce investments tied directly to efforts supporting the COLUMBIA and VIRGINIA class submarine programs.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	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 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

Critical Minerals: New starts in FY 2025 will focus on development of the midstream supply chain by focusing investment in the metallization & magnets space--the critical step in developing domestic mine-to-magnet capability and transferring some of China's ~90% magnet market dominance to the U.S. As a domestic supply of rare earth element oxides and metals become available, develop resources and processes for validation and testing for defense applications.

Kinetic Capabilities (Hypersonics): Additional funding in FY 2025 to productionize affordability projects and to transition the projects into U.S. Navy and U.S. Army programs of record.

Microelectronics: Additional funding in FY 2025 chiefly to transition from planning to contract execution phase in digital engineering effort.

Castings and Forgings: Increase infrastructure investments to implement automation and improve efficiencies; expand relevant workforce training network; expand relevant materials production efforts to mitigate/eliminate foreign dependencies.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense											Date: March 2024	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*				Project (Number/Name) 819 / *Industrial Base Analysis and Sustainment*			
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**
819: *Industrial Base Analysis and Sustainment*	728.902	802.936	1,017.141	1,099.243	-	1,099.243	960.543	729.864	667.319	679.927	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global supply chain disruptions have become more common, with recent events highlighting risks and vulnerabilities that undermine our national security. The February 24, 2022 report on Executive Order (E.O.) 14017, “America’s Supply Chains”, and the 2022 Industrial Capabilities Report (ICR) report each outline strategic focus areas and enabling capabilities, their associated vulnerabilities, and provide recommendations to strengthen the defense industrial base.

The FY 2025 IBAS budget reflects the DoD’s commitment to ensuring our supply chains can provide our warfighters with decisive advantage. This budget includes investments to respond to E.O. 14017 and ICR findings and recommendations, emerging and modernization priorities and technologies, and other defense requirements. This is the result of significant coordination for each strategic focus area via the program review teams (PRTs). These PRTs developed an integrated and prioritized investment strategy to address the most pressing needs for each focus area, to include mapping to investment authorities. The FY 2025 IBAS budget reflects the outcome of the PRT recommendations and has been coordinated to complement adjacent investments of related programs including the Defense Production Act (DPA) Title III, Manufacturing Technology (ManTech) program, and at the Military Service level. Accordingly, investments in the following strategic focus areas will establish, sustain, and expand domestic capabilities and capacities to build more sustainable and resilient supply chains.

Workforce – the DoD relies on a skilled workforce to innovate, produce, and sustain our weapon systems. Decades of erosion across workforce development pipelines jeopardize and threaten our industrial base’s ability to remain competitive. Efforts will continue to focus on recruitment, training, placing and retaining skilled workers in support of defense priority states/regions; and coordinating with other interagency programs and leveraging authorities from the Departments of Labor and Education to support priority defense programs. FY 2025's primary effort will be a continuation of a major, multi-year, joint OSD-Navy endeavor begun in FY 2023 focused on ensuring the health and capacity of the DoD’s submarine industrial workforce.

Critical Minerals -critical minerals are used in a broad range of DoD weapon systems. Like other industrial sectors such as microelectronics, there is a critical materials market concentration in China which makes U.S. economic and national security vulnerable to disruption. To mitigate risks, the DoD will pursue four lines of effort: 1) Develop and foster new sustainability standards for strategic and critical material intensive industries; 2) Expand sustainable domestic production, and processing, metallization, and magnetization capacity, including non-traditional mining and recycling; 3) Strengthen U.S. stockpiles and 4) Work with allies and partner nations to promote the sharing of technology, capability, and resources. FY 2025 primary efforts will include new starts on metallization & magnetization capabilities and continue prior year initiatives related to scaling domestic processing of Heavy Rare Earth Elements (HREE) and Light Rare Earth Elements (LREE).

Kinetic Weapons – kinetic capabilities, including hypersonic weapons, are essential to deterring America’s adversaries, who continue their military buildups including their own hypersonics capabilities. Current supply chains are vulnerable to raw materials and chemicals shortages; fragile, foreign, and/or sole-source suppliers; and technical challenges of transitioning hypersonic capabilities into production. The DoD will launch efforts to: 1) Address supply chain vulnerabilities of the most critical

chemicals; 2) Update material specifications, including production and quality testing requirements; and 3) Foster sub-tier suppliers and competition in the hypersonic industrial base to enable affordable production. FY 2025 primary focus efforts will improve and expand the hypersonics industrial base.

Energy Storage and Batteries – due to the small DoD market share and customized battery requirements the DoD is unable to fully leverage the large commercial investment in state-of-the-art energy storage technology. The nearly 100% foreign battery supply chain limits the DoD's ability to field battery enabled weapons/platforms free of adversary supply chain control. To mitigate these risks, DoD is investing to develop domestic assured access to batteries through three focus areas: 1) Initiate studies to define the aggregate demand for energy storage and batteries across the DoD; 2) Pivot to commercial standards and batteries to the maximum extent possible; and 3) Establish internal DoD safety testing capacity for energy storage and batteries for future weapons systems. FY 2025 primary efforts will initiate deep dive DoD demand analysis and identify commercial sourcing synergies.

Castings and Forgings (C&F) – machine tools and cast and forged parts are critical to the development, procurement, and sustainment of all major defense systems. Cast and forged parts are found in 20 percent of the products representing the U.S. Gross Domestic Product. Continuous industry consolidation and offshoring since the 1960's have hollowed out domestic capability, reducing or eliminating competition and increasing our dependence on other nations, including China. To mitigate these risks, the DoD will: Invest in four strategic lines of effort: 1) Metalworking research and Infrastructure supporting production and research in the Organic and commercial industrial base; 2) Workforce Development to improve the C&F workforce's size, capacity, and skills; 3) Upstream Supply Chain Security to provide timely , assured access to reliable sources of supply for the raw, refined, and semi-fabricated metals, materials, and related capabilities required to produce C&F and alternative parts for DoD; and 4) Strategy Refinement, informed by tools and analyses that enable DoD decision makers to sense evolving conditions and adjust efforts as needed.

Microelectronics -components are the foundation of a modern economy and military systems. Various vulnerabilities such as lack of domestic advanced manufacturing capabilities diminished capacity threaten the DoD's ability to source microelectronics needed to sustain programs of record. To prepare the Department for increased global economic and strategic challenges, the DoD must take action to ensure access to the microelectronic components needed to sustain our defense programs and systems effectively and affordably. The Department also needs a better strategy to transition leading edge technology developed by both government and industry to DoD programs of record, to ensure the Department maintains a competitive edge. To respond to the threat and establish a secure and assured domestic supply chain, the DoD will pursue multiple lines of microelectronics efforts. Efforts in IBAS are 1) Expanding the number of qualified domestic lower-tier suppliers providing leading edge microelectronics and packaging technologies; 2) Onshoring a trusted, pure-play, and open-access advanced packaging ecosystem for low-volume/high-mix advanced packaging; 3) Establishing a data repository to manage obsolescence; 4) Bolstering the domestic printed circuit board defense industrial base; and 5) Developing digital engineering methodologies to modernize the way that the DoD specifies and acquires microelectronics.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Industrial Base Analysis and Sustainment (IBAS) Support	560.736	1,017.141	1,099.243
Description: IBAS currently focuses efforts and investments for all fiscal years in the categories listed above and below, continuing investments to mitigate supply chain risks and findings from Executive Order 14017, and on-going assessments for both traditional defense sectors and cross-cutting sectors. Investments in Workforce, Critical Minerals, Castings and Forgings, Kinetics Capabilities, Energy Storage and Batteries, Microelectronics.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: 1. Workforce Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative): Roughly 40 NIIS portfolio pilot projects (ongoing plus new awards) will be executed during FY 2024, iteratively testing, validating, and refining multiple elements or segments of the initiative's 'Industrial Skills Workforce Development Ecosystem Model.' The intent is to produce increasing levels of real-world system maturity, harmonization/integration and effectiveness as depicted in the model. Many ongoing and to-be awarded NIIS efforts are designed to familiarize students presently in the K-12 pipeline with manufacturing competencies, and to introduce them to skillsets needed to support the Defense Industrial Base. Submarine Industrial Workforce: IBAS, in partnership with the Navy submarine enterprise, will continue to invest in the industrial base's development of the necessary recruitment functions, education and training programs, and worker retention/wrap-around support for critical workforce development needs. The objective is to accelerate the path to establishing at-scale regional training systems and other workforce pipeline delivery capability to provide sufficient numbers of "ready to work" high skill technical tradespeople supporting production levels meeting the nuclear Navy's submarine modernization requirements. This includes identifying new workforce supply sources and opportunities for disadvantaged/underserved and underrepresented populations through informed data analytics. Efforts will continue to focus on priority states/regions where key suppliers reside. Continuing to build-out regional training systems in New England and Virginia, expanding focus to the Great Lakes region, and West Coast. Also continuing to address critical workforce issues supporting Indo-Pacific sustainment needs, such as the introduction of advanced training programs and the associated curricula for skilled professionals in the realms of welding, machining, non-destructive testing, fiber optics and additive manufacturing. This strategy relies on the use of regional coordinators to help establish and improve essential organizational regional relationships and better align DoD, other USG agency capabilities, state/local, and nongovernmental investments in each defense-critical region. FY 2023 efforts included a contract awarded to supplement the submarine industrial base (SIB) with an additional builder of steel hull modules for the Columbia Class (SSBN 826) to improve throughput and to retain talented tradespeople while the Littoral Combat Ship production line comes to an end. FY 2024 will see an award for a lead system integrator to coordinate and orchestrate joint IBAS, PEO SSBN initiatives, bringing the requisite bandwidth to manage a growing and diverse portfolio of SIB marketing efforts and direct workforce augmentation programs. 2. Critical Minerals Sector Rare Earth Elements (REE): Continue efforts initiated in prior years to establish, sustain, and improve domestic rare earth capabilities, value-added manufacturing, and essential commercial product production. To meet current and growing demand, expand light REE (LREE) capability through creation of a second domestic source. These critical activities must continue despite			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
new supply chain challenges including non-allied export controls on materials & technology as well as dramatically increased costs and lead times. Continue the design and scaling of two domestic HREE processing lines and one LREE line in support of the DoD's efforts to address supply chain risks associated with the dependence on rare earth elements from foreign non-allied countries. Initiate efforts to reduce dependence on non-allied countries for essential equipment, minerals, and materials for the processing of REEs. Continue to support and explore prototype technologies and processes for REE separation and processing to support new domestic sources. 3. Castings and Forgings (C&F) and Machine Tools Increased the pace and scope of research into ways to supplement or obviate the need for cast and forged products, and to leverage the benefits of Industry 4.0 capabilities, including but not limited to industrial automation and robotics. Continued work with the Navy to accelerate planned metalworking process improvement and workforce development efforts, reconstitute casting and forging-related capabilities for materials processing and welding/joining plus additive manufacturing, began to develop modern computational tools to support advanced applied metallurgy, and initiated efforts to reduce barriers to entry posed by material and part qualification processes. Worked with the Army to improve production and enabling capabilities at key suppliers of aviation and ground combat systems. Conducted a study to effort to understand the capabilities of, and, where appropriate, recommend specific investments in C&F-related joint/government/industry/academic centers of excellence. Began execution of projects to provide timely, assured access to the raw and refined metals (including bar and plate stock, wire, and powder) and other materials, semi-fabricated products, and refractories needed to produce the cast, forged, and additively manufactured parts required to equip and sustain U.S. and other forces as required to fulfill national strategic guidance (i.e., the National Security Strategy and National Defense Strategy) and published Operations Plans and Concept Plans. Conducted analyses to refine the Defense Casting and Forging Industrial Base Implementation Plan. 4. Energy Storage and Batteries Conduct efforts that 1) assesses Department of the Airforce requirements for energy storage and battery, 2) optimize the development of a DOD Lithium Battery Database to enable DOD battery standardization and facilitates selection of common battery factors for the Services, 3) ensure the availability of lithium battery safety expertise for joint military efforts, and 4) analyzes supply chain risks and work force needs to support the DOD in mitigating the risks identified in these studies. These efforts will better position the DOD to leverage affordable domestic battery production for Electric Vehicles and other applications. 5. Kinetic Weapons (Hypersonics)			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Continue industrial base projects improving U.S. manufacturing capabilities and expand capacity for hypersonics programs in coordination with other OSD and Military Service organizations. Efforts target critical paths to increase capacity of existing suppliers, establish second sources and improve production capability to meet requirements. Six new and three ongoing projects started in FY 2023 continue in development to help drive cost down and increase affordability to field hypersonic weapon systems for the Navy and Army. An affordability study continues to assess potential investments in hypersonic supply chains addressing cost reductions and improved schedule for deliver. This study will inform FY 2025 investments. 6. Microelectronics FY 2024 Plans: 1. Workforce Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative): Roughly 40 NIIS portfolio pilot projects (ongoing plus new awards) will be executed during FY 2024, iteratively testing, validating, and refining multiple elements or segments of the initiative's 'Industrial Skills Workforce Development Ecosystem Model.' The intent is to produce increasing levels of real-world system maturity, harmonization/integration and effectiveness as depicted in the model. Many ongoing and to-be awarded NIIS efforts are designed to familiarize students presently in the K-12 pipeline with manufacturing competencies, and to introduce them to skillsets needed to support the Defense Industrial Base. Submarine Industrial Workforce: IBAS, in partnership with the Navy submarine enterprise, will continue to invest in the industrial base's development of the necessary recruitment functions, education and training programs, and worker retention/wrap-around support for critical workforce development needs. The objective is to accelerate the path to establishing at-scale regional training systems and other workforce pipeline delivery capability to provide sufficient numbers of "ready to work" high skill technical tradespeople supporting production levels meeting the nuclear Navy's submarine modernization requirements. This includes identifying new workforce supply sources and opportunities for disadvantaged/underserved and underrepresented populations through informed data analytics. Efforts will continue to focus on priority states/regions where key suppliers reside. Continuing to build-out regional training systems in New England and Virginia, expanding focus to the Great Lakes region, and West Coast. Also continuing to address critical workforce issues supporting Indo-Pacific sustainment needs, such as the introduction of advanced training programs and the associated curricula for skilled professionals in the realms of welding, machining, non-destructive testing, fiber optics and additive manufacturing. This strategy relies on the use of regional coordinators to help establish and improve essential organizational regional relationships and better align DoD, other USG agency capabilities, state/local, and nongovernmental investments in each defense-critical region.			

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Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2023 efforts included a contract awarded to supplement the submarine industrial base (SIB) with an additional builder of steel hull modules for the Columbia Class (SSBN 826) to improve throughput and to retain talented tradespeople while the Littoral Combat Ship production line comes to an end. FY 2024 will see an award for a lead system integrator to coordinate and orchestrate joint IBAS, PEO SSBN initiatives, bringing the requisite bandwidth to manage a growing and diverse portfolio of SIB marketing efforts and direct workforce augmentation programs. 2. Critical Minerals Sector Rare Earth Elements (REE): Continue efforts initiated in prior years to establish, sustain, and improve domestic rare earth capabilities, value-added manufacturing, and essential commercial product production. To meet current and growing demand, expand light REE (LREE) capability through creation of a second domestic source. These critical activities must continue despite new supply chain challenges including non-allied export controls on materials & technology as well as dramatically increased costs and lead times. Continue the design and scaling of two domestic HREE processing lines and one LREE line in support of the DoD's efforts to address supply chain risks associated with the dependence on rare earth elements from foreign non-allied countries. Initiate efforts to reduce dependence on non-allied countries for essential equipment, minerals, and materials for the processing of REEs. Continue to support and explore prototype technologies and processes for REE separation and processing to support new domestic sources. 3. Castings and Forgings (C&F) and Machine Tools Increased the pace and scope of research into ways to supplement or obviate the need for cast and forged products, and to leverage the benefits of Industry 4.0 capabilities, including but not limited to industrial automation and robotics. Continued work with the Navy to accelerate planned metalworking process improvement and workforce development efforts, reconstitute casting and forging-related capabilities for materials processing and welding/joining plus additive manufacturing, began to develop modern computational tools to support advanced applied metallurgy, and initiated efforts to reduce barriers to entry posed by material and part qualification processes. Worked with the Army to improve production and enabling capabilities at key suppliers of aviation and ground combat systems. Conducted a study to effort to understand the capabilities of, and, where appropriate, recommend specific investments in C&F-related joint/government/industry/academic centers of excellence. Began execution of projects to provide timely, assured access to the raw and refined metals (including bar and plate stock, wire, and powder) and other materials, semi-fabricated products, and refractories needed to produce the cast, forged, and additively manufactured parts required to equip and sustain U.S. and other forces as required to fulfill national strategic guidance (i.e., the National Security Strategy and National Defense Strategy) and published Operations Plans and Concept Plans. Conducted analyses to refine the Defense Casting and Forging Industrial Base Implementation Plan.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
4. Energy Storage and Batteries Conduct efforts that 1) assesses Department of the Airforce requirements for energy storage and battery, 2) optimize the development of a DOD Lithium Battery Database to enable DOD battery standardization and facilitates selection of common battery factors for the Services, 3) ensure the availability of lithium battery safety expertise for joint military efforts, and 4)analyzes supply chain risks and work force needs to support the DOD in mitigating the risks identified in these studies. These efforts will better position the DOD to leverage affordable domestic battery production for Electric Vehicles and other applications. 5. Kinetic Weapons Hypersonics: Continue industrial base projects improving U.S. manufacturing capabilities and expand capacity for hypersonics programs in coordination with other OSD and Military Service organizations. Efforts target critical paths to increase capacity of existing suppliers, establish second sources and improve production capability to meet requirements. Six new and three ongoing projects started in FY 2023 continue in development to help drive cost down and increase affordability to field hypersonic weapon systems for the Navy and Army. An affordability study continues to assess potential investments in hypersonic supply chains addressing cost reductions and improved schedule for deliver. This study will inform FY 2025 investments. 6. Microelectronics Secure Packaging – Eight efforts initiated in FY 2023 continue to establish a US-owned, domestic, trusted, pure-play and open-access Advanced Packaging Ecosystem for low volume production of 2.5-D and 3-D Advanced System Integration and Packaging secure solutions. Targeted activities and capabilities include tool acquisition and equipment engineering to support advanced packaging manufacturing along with developing secure microelectronics solutions and demonstrators. Targeted processes include wafer preparation and wafer bumping capabilities on 300mm substrates, advanced interposer manufacturing capability for radiofrequency (RF) applications, and Fan-Out Wafer-Level Packaging capability . Domestic access and sourcing of materials and chemicals is being established. Security solutions are advancing towards completion. Prototype development and planning is anticipated to be about 25% completed. Enterprise Parts Management System (EPMS) – Activity primarily consists of system development to include: completion of the PDR, 50% progress toward the critical design review, and minimum viable product development and delivery. Efforts also focus on delivery of the Life-cycle Sustainment and Systems Engineering Plans. Policy and requirements development will continue to ensure full functionality, integration, and adoption of EPMS.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Radar Frequency (RF) Microelectronics – Effort focuses on design and development of Prototype X-band Radar microelectronic components for Homeland Cruise Missile Defense to be used for the Fire Control Radar program. Activities will include addressing supply chain risks by adapting commercial technology to defense applications and improvements to provide critical SWAP-C advantages. Digital Engineering/Cloud Compute – Activity develops, extends, and maintains Digital Engineering infrastructure. Additionally, efforts include selection and acquisition of EDA tools and IP licenses, development of cost-shared based pilots for tech insertion, and establishment of a Tri-Service Working Group to oversee “Common” IP licensing and maximize benefits to all services. Printed Circuit Board (PrCB) - Establishes Tri-Service Working Group to prioritize investments in on-shoring of PrCB capabilities, perform an industrial base assessment and gap analyses, and develop a Tri-Service PrCB Roadmap that addresses industrial base shortfalls. ***FY 2025 Plans:*** 1. Workforce Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative): The portfolio of over 40 pilot efforts funded in FY 2024 will continue in FY 2025 at various planned programmatic stages, iteratively testing, validating and refining multiple elements or segments of the initiative’s ‘Industrial Skills Workforce Development Ecosystem Model.’ The intent is to produce increasing levels of real-world system maturity, harmonization/integration and effectiveness as depicted in the model. Many ongoing and to-be awarded NIIS efforts are designed to familiarize students presently in the K-12 pipeline with manufacturing competencies, and to introduce them to skillsets needed to support the Defense Industrial Base. Submarine Industrial Workforce: IBAS, in partnership with the Navy submarine enterprise, will continue to invest in the industrial base’s development of the necessary recruitment functions, and education and training programs, and worker retention/wrap-around support for critical workforce development needs. The sustained objective is to accelerate the path to establishing at-scale regional training systems and other workforce pipeline delivery capability to provide sufficient numbers of “ready to work” high skill technical tradespeople supporting production levels meeting the nuclear Navy’s submarine modernization requirements. This includes identifying new workforce supply sources and opportunities for disadvantaged/underserved and underrepresented populations through informed data analytics. Efforts will continue to focus on priority states/regions where key suppliers reside. Continue to build-out regional training systems in New England and Virginia, Great Lakes region, and West Coast, with continued special focus on Indo-Pacific sustainment needs, with the continuation of advanced training programs and the associated curricula for skilled professionals in the realms of welding, machining, non-destructive testing, fiber optics and additive manufacturing. This strategy relies on the use of regional coordinators to help establish and improve essential organizational regional relationships and better align DoD, other USG agency capabilities, state/local, and nongovernmental investments in each defense-critical region.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
2. Critical Minerals Sector Rare Earth Elements (REE): Continue efforts initiated in prior years to establish, sustain, and improve domestic rare earth capabilities, value-added manufacturing, and essential commercial product production. Continue to address new supply chain challenges including, non-allied export controls on materials and technology as well as dramatically increased costs and lead times. Prioritize investment in midstream production of REE products through metallization and magnetization projects, in line with the Administration's goal of a domestic mine-to-magnet supply chain. Expand support for critical upstream capabilities in response to market forces and anticipated increased demand. Continue engineering and construction of two domestic REE HREE processing lines and one LREE processing line in support of the DoD's efforts to address supply chain risks associated with the dependence on REE from foreign non-allied countries. Continue efforts initiated in prior years to reduce dependence on non-allied countries for essential equipment and materials for the processing of REEs. Continue to support and explore prototype technologies and processes for REE separation and processing to support new domestic sources, with increased emphasis on recycling. Chemical Energetics: launch efforts to sustain and expand domestic capacities for priority chemicals in support of the DoD's energetics and munitions supply chain. 3. Castings and Forgings (C&F) and Machine Tools In FY 2025, the IBAS program will leverage a significant increase in funding detailed in the Defense Casting and Forging Industrial Base Implementation Plan to deliver timely changes to Industry 4.0-enabled production and metrology processes, automated/ robotics equipment, and computational tools that speed and supplement the production of cast and forged products, as well as research into advanced/alternative materials, products, and processes. IBAS-sponsored, capabilities for quickly educating and training new metalworkers and Government metals experts began to produce qualified workers with the up-to-date knowledge, skills, and abilities to succeed in metalworking and related fields in the Organic Industrial Base (OIB) and commercial industrial base. Developed and began to execute specific plans to right size and improve the capabilities of C&F-related joint/government/ industry/academic centers of excellence. Continued execution of specific projects to provide timely, assured access to the raw and refined metals (especially titanium, modern alloys, and refractory metals) in the form of bar and plate stock, wire, and powder, as well as other materials, semi-fabricated products, and ceramic refractories needed to produce superior cast, forged, and additively manufactured parts. Developed and maintained data analysis tools to inform analyses to quickly match DIB firms with C&F product suppliers and refine the cross-Service casting and forging strategy. Continued to refine the Implementation Plan as conditions evolved, to support development and execution of new projects as needed.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
4. Energy Storage and Batteries Conduct efforts that 1) assess Department of the Air Force requirements for energy storage and battery, 2) optimize the development of a DOD Lithium Battery Database to enable DOD battery standardization and facilitates selection of common battery factors for the Services, and 3) ensure the availability of lithium battery safety expertise for joint military effort.			
5. Kinetic Weapons Hypersonics Facilitate investments targeting capability and affordability of hypersonic weapon systems in coordination with the Services and OSD stakeholders. Continue industrial base improvement and expansion for hypersonics programs in coordination with other OSD and U.S. Military Service organizations. Nine ongoing projects continue to help drive cost down and increase capability to field hypersonic weapon systems for the Navy and Army. Our efforts will ultimately transition this capability into a program of record. Current major developments: 1. Affordable Thermal Protection System: numerous thermal protection system development efforts are underway and are a critical objective for the ICAMs program. The development and testing of these efforts are planned. Solid Rocket Motor Second Source qualification a second source for Solid Rocket Motors will be executed in FY 2025 . 3. Affordability Study: the FY 2024 affordability study informed the FY 2025 investment plan to execute between 5 and 10 new efforts addressing capability and affordability for hypersonic supply chains. All efforts focus on new and novel technologies designed to increase manufacturability with significantly reduced costs when fully developed. Furthermore, these efforts foster competition, innovation, cost savings potentials, and reaffirming technological capability in this technology. This funding request is different from FY 2024 as we are moving into a more mature phase of technology development and have additional industry partners with new capabilities. This funding provides new technologies for hypersonic and kinetic weapons systems that will reduce cost and accelerate adoption and integration of the technology, thus enabling the use of such weapons in theater with reduced cost prohibitors. In addition, the resultant capabilities of this funding will allow the US Military to demonstrate and claim hypersonic weapon capability in the global deterrence mission.			
6. Microelectronics			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Secure Packaging – Eight efforts initiated in FY 2023 continue to establish a US-owned, domestic, trusted, pure-play and open-access Advanced Packaging Ecosystem for low volume production of 2.5-D and 3-D Advanced System Integration and Packaging secure solutions. Targeted activities and capabilities include installing, qualifying, and brining tooling online to support advanced packaging manufacturing along with developing secure microelectronics solutions and demonstrators. By FY 2025, efforts will shift to final equipment acceptance and process qualification. Targeted processes continue to include wafer preparation and wafer bumping capabilities on 300mm substrates, advanced interposer manufacturing capability for radiofrequency (RF) applications, and Fan-Out Wafer-Level Packaging capability. Additionally, security solutions will be moving toward completion and prototype development and planning will be about 50% completed. Enterprise Parts Management System (EPMS) – Activity will primarily consist of system development to include completion of the CDR and initial minimum viable product development and delivery. Policy will continue to be refined to ensure full functionality, integration and adoption of EPMS. Radar Frequency (RF) Microelectronics – Efforts will continue developing a Prototype X-band Radar for Homeland Cruise Missile Defense to be used for the Fire Control Radar program. Activities will include addressing supply chain risks by adapting commercial technology to defense applications and improvements to provide critical SWAP-C advantages. Digital Engineering/Cloud Compute – BY FY 2025, the contract will be awarded for the Digital Engineering infrastructure. Efforts will focus on procurement of EDA tools and IP licenses, initiation of cost-shared based pilots for tech insertion identified during FY 2024, and oversight of the Tri-Service Working Group to oversee “Common” IP licensing to maximize benefits to all services. Printed Circuit Board (PrCB) – Activity will include oversight for the Tri-Service Working Group to prioritize investments in on-shoring of PrCB capabilities, overseeing industrial base assessment and gap analyses, and maintaining Tri-Service PrCB Roadmap that addresses industrial base shortfalls. Investments will also be initiation in identified Service priorities for PrCB domestic/trusted ally capabilities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The FY 2025 P819 IBAS increase of $79.392 million reflects an increase for significant issues that include Castings and Forgings infrastructure investments to implement automation and improve efficiencies. The increase also reflects OSD internal realignment for other DOD priorities to include Kinetic Weapons (Hypersonics).			
Accomplishments/Planned Programs Subtotals	560.736	1,017.141	1,099.243

	FY 2023	FY 2024
Congressional Add: Advanced Nanomaterials Manufacturing / Metal-organic frameworks	5.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

	FY 2023	FY 2024
FY 2023 Accomplishments: Designed a post-processing Dual-Use Manufacturing Prototype Line (DUMPL) specifically for MOF (synthesis reactors are available for rent). Procure, Install, Assemble and begin qualification of the DUMPL Line.		
Congressional Add: Automated textile manufacturing ***FY 2023 Accomplishments:*** Expanded partnerships to prototype and implement automated manufacturing processes for advanced textiles needed for defense use and development of associated workforce curricula and training programs needed for successful industry adoption and use.	7.500	-
Congressional Add: Interdisciplinary Center for Advanced Manufacturing Systems ***FY 2023 Accomplishments:*** Continued to expand workforce development projects related to digital engineering and systems engineering technical training programs.	10.000	-
Congressional Add: Precision Optics Manufacturing ***FY 2023 Accomplishments:*** Continued to grow the number of high schools and 2-year colleges teaching precision optics curricula, and consequently, continue growing the annual pipeline of new, qualified technicians. This project has a goal of 800 optics technicians per year by 2025, as originally planned in the project's 5-year commitment to address the DoD's critical shortage of precision optics technicians.	10.000	-
Congressional Add: Accelerated training in defense manufacturing ***FY 2023 Accomplishments:*** Continued to increase the number of skilled workers through the ADTM program that cuts training time up to 75 percent to support the defense industrial base.	5.000	-
Congressional Add: Advanced Headborne Systems Manufacturing ***FY 2023 Accomplishments:*** Provided open competition and target FY 2023 Q3 for award and kick-off.	5.000	-
Congressional Add: Carbon/Carbon Industrial Base Enhancement ***FY 2023 Accomplishments:*** Continued to increase capacity for carbon-carbon material production for high temperature applications.	3.000	-
Congressional Add: Career and Technical Education Pilot ***FY 2023 Accomplishments:*** Continued to conduct prototyping efforts that expand career and technical education in industrial skills.	10.000	-
Congressional Add: Digital Thread Manufacturing Demonstration	8.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

	FY 2023	FY 2024
FY 2023 Accomplishments: Continued execution of projects that promote the adoption of advanced technologies, skilled workforce development, and the integration of digital tools (especially in situ sensors and metrology capabilities) by current and prospective defense manufacturers.		
Congressional Add: Resilient Manufacturing Ecosystem ***FY 2023 Accomplishments:*** Continued to expand micro-defense additive manufacturing ecosystem focused on transitioning materials, processes, equipment and people into a production environment.	5.000	-
Congressional Add: Ruggedized Transceivers ***FY 2023 Accomplishments:*** The FY 2023 effort is continuing the qualification of manufacturing capacity of aerospace-grade fiber optic transceivers capable of data transport of up to 200 Gbps over multimode fiber.	7.500	-
Congressional Add: Advanced Design and Engineering Capabilities for Small Businesses ***FY 2023 Accomplishments:*** Established partnerships with industry, academia, and the NIST MEP program to create and deliver training in the use of advanced design and engineering capabilities by small businesses.	12.000	-
Congressional Add: Advanced Electrochromic Manufacturing Program ***FY 2023 Accomplishments:*** Completed first phase of two-year effort to expeditiously and affordably manufacture advanced electrochromic solutions that provide safe, effective eye protection to U.S. military operational personnel in the field.	5.000	-
Congressional Add: Advanced Thermoplastics Demonstration ***FY 2023 Accomplishments:*** Established partnerships to execute the first phase of the three-year Advanced Composite Assembly Innovation (ACAI) project, producing and testing a thermoplastic composite structure for use in key structures on Navy and Marine Corps aircraft.	4.000	-
Congressional Add: Aluminum Armor Plating ***FY 2023 Accomplishments:*** Established partnerships to prototype and implement the production of advanced aluminum armor plating for use in military applications.	1.500	-
Congressional Add: Automated Integrated Metrology ***FY 2023 Accomplishments:*** Continued and expanded existing partnerships to develop and execute projects that demonstrate and accelerate the creation and use of automated integrated metrology capabilities in production machines (both additive and subtractive) across a variety of metal and composite materials.	5.000	-
Congressional Add: Demonstration Scale of REE from Coal Ash Technology	30.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

	FY 2023	FY 2024
FY 2023 Accomplishments: Established a full-scale plant to extract rare earth elements from coal ash. Enables scale up from small scale demonstration project previously funded by IBAS which proved out feasibility and process for commercial scale.		
Congressional Add: Digital Design and Engineering Demonstration ***FY 2023 Accomplishments:*** Established partnership to prototype and develop project-based industrial workforce training in the theory and practice of digital design and engineering for military applications.	5.500	-
Congressional Add: Expanding U.S. Defense Workforce ***FY 2023 Accomplishments:*** Conducted prototyping efforts to expand U.S. defense workforce.	20.000	-
Congressional Add: Hybrid Manufacturing for Lightweight Defense Components ***FY 2023 Accomplishments:*** Leveraged existing partnerships to develop and execute projects that accelerate the application of hybrid (additive plus subtractive) manufacturing processes, a variety of metal and composite materials, and advanced digital metrology to the rapid production of lightweight defense components.	5.000	-
Congressional Add: Munitions Supply Chain Diversification ***FY 2023 Accomplishments:*** Focused on sub-tier manufactures for munitions production.	20.000	-
Congressional Add: On-Shore Advanced Microelectronic Packaging for Strategic Mission Enablement ***FY 2023 Accomplishments:*** Developed advanced packaging manufacturing technology and capabilities to address gaps in the domestic ecosystem.	40.000	-
Congressional Add: On-Shoring Navy Battery Cells ***FY 2023 Accomplishments:*** Developed advanced battery manufacturing technology and capabilities to address gaps with domestic sourcing of cells.	10.000	-
Congressional Add: Partnerships For Manufacturing Training Innovation ***FY 2023 Accomplishments:*** Conducted prototyping effort to build partnerships for manufacturing training program.	7.000	-
Congressional Add: Systems Engineering Technology (SET) Apprenticeship and Internship Program ***FY 2023 Accomplishments:*** Continued to expand systems engineering technician training program.	1.200	-
Congressional Adds Subtotals	242.200	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
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C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

NA

D. Acquisition Strategy

The Innovation Capabilities and Modernization Office established the Government-run Cornerstone Other Transaction Agreement (COTA) in 2018 to award the majority of our IBAS program projects. COTA leverages expertise and personnel at the Army Contracting Command in Rock Island, IL to execute Defense Industrial Base (DIB) resiliency and supply chain initiatives that focus on prototype projects, which, enables increasing DIB capabilities and capacities over a broad range of DoD requirements. Other acquisition vehicles such as the General Services Administration and other Military Service and Defense Agency vehicles are used as required if IBAS program requirements exceed COTA's annual capacity.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	Project (Number/Name) 819 / *Industrial Base Analysis and Sustainment*	

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
IBAS Baseline Program Efforts - Prior Years	C/Various	various : various	299.523	-		-		-		-		-	Continuing	Continuing	-
Workforce Initiatives	C/FFP	SE New Eng Def Ind Assoc; Senedia; Auburn Univ; TX A&M; Americom; RD Solutions; Inst Advanced Learning; VT Tech Coll; Aeromarck; IACMI; BG Workforce Solutions; 202 Group; Poplicus; Productive Res : Multiple States	138.822	234.500	Jun 2023	263.500	Jun 2024	112.150	Jun 2025	-		112.150	Continuing	Continuing	-
Critical Chemicals: Heavy Rare Earth Elements Supply Chain Resiliency	C/FFP	MP Mine Operations LLC & Lynas LLC : CA & Texas	41.863	50.000	Jun 2023	227.692	Sep 2024	192.692	Jun 2025	-		192.692	Continuing	Continuing	-
Technical Initiatives Other: Adv Headborne sys; carbon/carbon IB; lead-free; directed energy; enhanced digital; freeze dried plasma; metal organic frameworks; pilot mask technology; radar technolkogy	C/FFP	Multiple : Multiple	157.888	18.303	Sep 2023	20.055	Mar 2024	20.450	Jun 2025	-		20.450	Continuing	Continuing	-
Castings and Forgings (Advanced Machine Tools)	FFRDC	Oakridge National Laboratories : Oakridge, TN	51.174	32.500	Jun 2023	172.300	Jun 2024	293.700	Jun 2025	-		293.700	Continuing	Continuing	-
Microelectronics	C/FFP	Multiple : Multiple	8.000	96.204	Jun 2023	310.284	Jun 2024	355.326	Jun 2025	-		355.326	Continuing	Continuing	-
Hypersonics Weapons Components	C/FFP	Multiple : Multiple	-	118.000	Jun 2023	10.000	Jun 2024	110.000	Jun 2025	-		110.000	Continuing	Continuing	-
Congressional Adds FY 2023 - details pending	C/TBD	TBD : TBD	-	242.200		-		-		-		-	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	Project (Number/Name) 819 / *Industrial Base Analysis and Sustainment*	

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
Subtotal			697.270	791.707		1,003.831		1,084.318		-		1,084.318	Continuing	Continuing	N/A

Support ($ 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
Joint Army NASA Air Force (JANNAF) Executive Committee Support	C/FFP	Johns Hopkins : MD	0.894	0.265	Sep 2023	0.134	Sep 2023	-		-		-	Continuing	Continuing	-
Subtotal			0.894	0.265		0.134		-		-		-	Continuing	Continuing	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
OSD SETA Support	Various	Frontier Technologies Inc : VA	22.875	5.271	Mar 2023	7.403	Mar 2024	9.049	Jun 2025	-		9.049	Continuing	Continuing	-
Army/Navy Program Management	MIPR	DEVCOM CBC, NSWC Crane, PEO Stri : IL/IN/FL	6.487	4.317	Dec 2022	4.397	Dec 2023	4.500	Jun 2025	-		4.500	Continuing	Continuing	-
IBAS Technical Teams Support	C/FFP	Booz Allen Hamilton : Alexandria, VA	1.376	1.376	Mar 2023	1.376	Dec 2023	1.376	Jun 2025	-		1.376	Continuing	Continuing	-
Subtotal			30.738	10.964		13.176		14.925		-		14.925	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	728.902	802.936		1,017.141		1,099.243		-		1,099.243	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

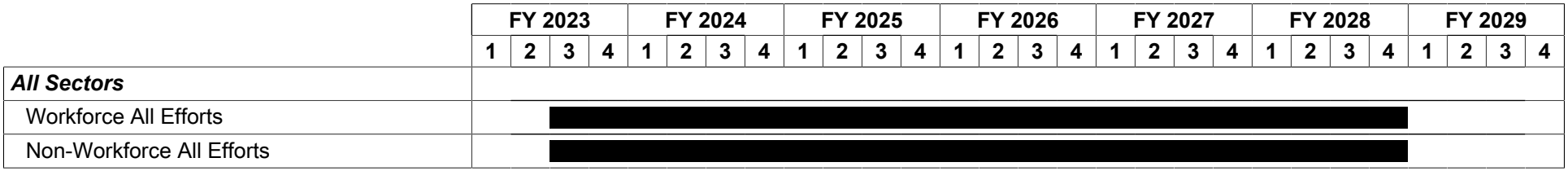

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
All Sectors				
Workforce All Efforts	3	2023	4	2028
Non-Workforce All Efforts	3	2023	4	2028