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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</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
Total Program Element	398.110	342.242	830.294	1,017.141	-	1,017.141	1,149.175	1,019.409	781.133	717.601	Continuing	Continuing
819: <i>Industrial Base Analysis and Sustainment</i>	394.360	334.542	830.294	1,017.141	-	1,017.141	1,149.175	1,019.409	781.133	717.601	Continuing	Continuing
821: <i>Microelectronics</i>	3.750	7.700	-	-	-	-	-	-	-	-	0.000	11.450

Note

New Start (Y/N): N

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, Capacity 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 tandem 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. IBAS program element investments are further synchronized across the department through coordination with other research and development programs, such as the OSD Manufacturing Technology program, residing in the Office of the Under Secretary of Defense for Research and Engineering (OSD(R&E)).

This program element supports the Department's initiatives to Defend the Homeland, Build Sustainable and Long-Term Advantage, and Taking Care of People.

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.

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Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 0607210D8Z I Industrial Base Analysis and Sustainment Support				
Management Process – To successfully execute the FY 2024 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 Service or defense agency technical lead to develop and execute an acquisition strategy and implementation plans for each strategic focus area.						
FY 2024 strategic focus areas that will be executed in IBAS Project Code P819 include workforce, critical materials and chemicals, castings and forgings, kinetic weapons, energy storage and batteries, microelectronics, and biomanufacturing. Descriptions of each focus area are included in the P819 R-2a.						
B. Program Change Summary (\$ in Millions)		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget		335.410	588.094	636.406	-	636.406
Current President's Budget		342.242	830.294	1,017.141	-	1,017.141
Total Adjustments		6.832	242.200	380.735	-	380.735
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	242.200			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-9.916	-			
• Program Adjustments		16.748	-	380.735	-	380.735
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 819: Industrial Base Analysis and Sustainment						
Congressional Add: Program Increase						
Congressional Add: Advanced Nanomaterials Manufacturing / Metal-organic frameworks						
Congressional Add: Automated textile manufacturing						
Congressional Add: Industrial Skills						
Congressional Add: Interdisciplinary Center for Advanced Manufacturing Systems						
Congressional Add: Freeze Dried Plasma						
Congressional Add: Lead-free Electronics						
Congressional Add: Machine Tooling and Advanced Manufacturing						
Congressional Add: Pilot Mask Technology						
Congressional Add: Precision Optics Manufacturing						

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Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2022	FY 2023
Congressional Add: <i>Submarine Workforce Development</i>		20.000	-
Congressional Add: <i>Weldable Ultra Hard Armor</i>		3.000	-
Congressional Add: <i>Accelerated training in defense manufacturing</i>		5.000	5.000
Congressional Add: <i>Advanced Headborne Systems Manufacturing</i>		7.500	5.000
Congressional Add: <i>Carbon/Carbon Industrial Base Enhancement</i>		6.000	3.000
Congressional Add: <i>Career and Technical Education Pilot</i>		10.000	10.000
Congressional Add: <i>Defense Supply Chain Enhancement</i>		10.000	-
Congressional Add: <i>Digital Engineering Enabled Workforce Development</i>		7.000	-
Congressional Add: <i>Digital Thread Manufacturing Demonstration</i>		8.000	8.000
Congressional Add: <i>Enhanced Digital Capabilities</i>		7.000	-
Congressional Add: <i>Heavy Rare Earth Elements Program</i>		80.000	-
Congressional Add: <i>Rare Earth Elements and Critical Minerals Recovery Technique Demonstration</i>		3.000	-
Congressional Add: <i>Rare Earth Separation Technologies</i>		4.000	-
Congressional Add: <i>Resilient Manufacturing Ecosystem</i>		2.500	5.000
Congressional Add: <i>Ruggedized Transceivers</i>		10.000	7.500
Congressional Add: <i>Systems Engineering Technician Education Initiative</i>		0.550	-
Congressional Add: <i>Advanced Design and Engineering Capabilities for Small Businesses</i>		-	12.000
Congressional Add: <i>Advanced Electrochromic Manufacturing Program</i>		-	5.000
Congressional Add: <i>Advanced Thermoplastics Demonstration</i>		-	4.000
Congressional Add: <i>Aluminum Armor Plating</i>		-	1.500
Congressional Add: <i>Automated Integrated Metrology</i>		-	5.000
Congressional Add: <i>Demonstration Scale of REE from Coal Ash Technology</i>		-	30.000
Congressional Add: <i>Digital Design and Engineering Demonstration</i>		-	5.500
Congressional Add: <i>Expanding U.S. Defense Workforce</i>		-	20.000
Congressional Add: <i>Hybrid Manufacturing for Lightweight Defense Components</i>		-	5.000
Congressional Add: <i>Munitions Supply Chain Diversification</i>		-	20.000

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<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2022	FY 2023
Congressional Add: <i>On-Shore Advanced Microelectronic Packaging for Strategic Mission Enablement</i>		-	40.000
Congressional Add: <i>On-Shoring Navy Battery Cells</i>		-	10.000
Congressional Add: <i>Partnerships For Manufacturing Training Innovation</i>		-	7.000
Congressional Add: <i>Systems Engineering Technology (SET) Apprenticeship and Internship Program</i>		-	1.200
Congressional Add Subtotals for Project: 819		277.550	242.200
Congressional Add Totals for all Projects		277.550	242.200
<u>Change Summary Explanation</u>			
P821 Microelectronics FY 2023 funding for the Defense Microelectronics Cross-Function Team effort transitioned organizationally and fiscally on October 1, 2021 from Program Element 0607210D8Z to Program Element 0604294D8Z Microelectronics under the Office of the Undersecretary of Defense for Research and Engineering (OUSD(R&E)).			
FY 2024 increase provides funding for efforts as addressed in the R2 below: Workforce, Critical Materials and Chemicals, Castings and Forgings, Kinetics Capabilities, Energy Storage and Batteries, Microelectronics,			

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense										Date: March 2023		
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 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
819: Industrial Base Analysis and Sustainment	394.360	334.542	830.294	1,017.141	-	1,017.141	1,149.175	1,019.409	781.133	717.601	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 Base Capabilities (ICR) report each outline strategic focus areas and enabling capabilities, their associated vulnerabilities, and provide recommendations to strengthen the defense industrial base.

The FY 2024 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 cross-functional teams (CFT). These CFTs 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 2024 IBAS budget reflects the outcome of the CFT 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, and placing 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 2024’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 Materials and Chemicals - critical materials and critical chemicals 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 capacity, including non-traditional mining and recycling; 3) Strengthen U.S. stockpiles; 4) Work with allies and partner nations to promote the sharing of technology, capability, and resources. FY 2024 primary efforts will continue prior year initiatives related to scaling domestic processing of Heavy Rare Earth Elements (HREE).

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

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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	
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 2024 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 2024 primary efforts will initiate deep dive DoD demand analysis and identify commercial sourcing synergies.			
Castings and Forgings – 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: 1) Continue refinement and begin implementation of a cross-service casting and forging strategy to inform policy and investment decisions; 2) Conduct research activities to expand sub-tier supplier development and to improve rapid designs and affordable and reliable production; and 3) Invest to modernize relevant organic industrial base capabilities. FY 2024 primary investments will initiate deep dive analyses to inform strategic investment strategies. They will also center on research into ways to supplement the production of cast and forged products, reconstitution of research capabilities for metals manufacturing, and efforts to create new tool and industrial skill training capabilities to support critical programs.			
Microelectronics - components are the foundation of modern economy and military systems. Various vulnerabilities threaten the DoD’s ability to source microelectronics needed to sustain programs of record. In order 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 included in IBAS are 1) Establishing domestic advanced packaging capabilities; 2) Establishing data repository to manage obsolescence; and 3) Establishing workforce efforts needed to design and make microelectronic components domestically.			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023
Title: Industrial Base Analysis and Sustainment (IBAS) Support		56.992	1,017.141
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 Materials and Chemicals, Castings and Forgings, Kinetics Capabilities, Energy Storage and Batteries, Microelectronics,			
FY 2023 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023
1. Workforce Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative, and Submarine Industrial Workforce): FY 2023 and FY 2024 Plans are similar. See FY 2024 Plans discussions provided below. Divestiture Pilot: To respond to new threats, the DoD needs to divest from old programs and build new capabilities. While necessary, divesting often creates long downtimes within the supply chain prior to the start of new work. These production gaps risk permanent loss of workers and capability needed to produce new programs. pilot regional projects to minimize program divestiture impacts. Efforts include 1) retrain and retain workforce for future production requirements, e.g. shift from aluminum to steel welding; and 2) capitalize and qualify as new suppliers for other programs. Efforts will continue to focus on transition from aluminum construction to supporting Program Executive Office Strategic Submarines' Columbia Class Program and Program Executive Office Attack Submarines' Virginia Class Program. 2. Critical Chemicals and Materials Sector: Heavy Rare Earth (HREE): continued efforts initiated in prior years to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Continued the design and scaling of two domestic HREE processing lines 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. Light Rare Earth Elements (LREE): Efforts initiated to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Designing and scaling domestic LREE processing 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. Other Material Sectors – expanded, sustained, and improved the value-added domestic manufacturing capabilities for critical materials such as boron and carbon fibers, magnesium, and tantalum for defense applications. 3. Castings and Forgings and Machine Tools Castings and Forgings Analysis: Execute 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 operational plans. 4. Energy Storage and Batteries: initiated a series of studies to assess and analyze 1) DoD consumption and purchasing patterns; 2) domestic commercial sources of supply and their capability and capacity to support DoD needs; and 3) domestic			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023
testing facilities and capabilities for future acquisition requirements. FY 2023 and FY 2024 Plans are similar. See FY 2024 Plans discussions provided below. 5. Kinetic Weapons Hypersonics: initiated efforts to improve manufacturing processes and expand capacity for hypersonics programs, to continue to help drive cost down and increase affordability to field hypersonic weapon systems for the Navy and Army. Focused on sub-tier suppliers to improve yield rates, accelerate production timelines, and establish second sources for critical subcomponents. 6. Microelectronics Microelectronics Secure Packaging and Enterprise Electronic Parts Management System (EEPMS): FY 2023 and FY 2024 Plans are similar. See FY 2024 Plans discussions provided below. Advanced Secure Packaging (RESHORE) – Nearly all - 97% --of semiconductor packaging is currently off-shore creating global exposure and security risks. . To address this - the Department is standing up domestic State of the Art manufacturing packaging capabilities and technologies. This effort will leverage the semiconductor industry movement to 2.5D/3D advanced packaging by investing in on-shore facilities with commercial underpinnings with the goal of ensuring access and availability and will enable comprehensive microelectronics security integration. Electronic Parts Management System (EPMS) – To improve risk management, he DoD must possess the capability to aggregate demand and quickly delineate parts data and purchasing patterns from global supply chains. EPMS will establish an enterprise-wide capability to provide quick and detailed access to parts information, purchasing patterns and mitigate potential supply chain risks. The FY 2023 activity launched a study of existing capabilities and gaps, and continued with outreach to potential stakeholders and their leadership, assessing existing systems as potential sources of information or features, determining the optimal architecture, delineating the requirements and examining potential policy changes to enable the full functionality of EPMS. Secure Packaging –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 capabilities included: establishing wafer preparation and wafer bumping capabilities on 300mm substrates; continued development of advanced interposer; manufacturing capability; initiating Fan-Out Wafer-Level Packaging capability; initiating domestic High Density Build-Up substrates / High Density Interconnect processes; initiating design, testing and thermal management capability; and initiating efforts to mitigate and improve access to materials and chemicals needed for a secure packaging ecosystem. FY 2024 Plans: 1. Workforce			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023
Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative): All 16 previously funded efforts in the NIIS portfolio continue in FY 2024 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. 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, training and education programs, and 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 modes as needed to create sufficient capability to provide "ready to work" high skill technical tradespeople at the production levels needed to meet the nuclear Navy's submarine modernization requirements. This includes identifying new workforce supply sources and opportunities for disadvantaged/underserved and underrepresented populations through big data analytics. Efforts will continue to focus on priority states/regions where key suppliers reside. Launched regional training systems in New England and Virginia. 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. 2. Critical Chemicals and Materials Sector: Rare Earth Elements (REE): Continue efforts initiated in prior years to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Continue the design and scaling of two domestic REE processing lines 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. Continue to explore prototype technologies and processes for REE separation and processing to support new domestic sources. Other Material Sectors – expand, sustain, and improve the value-added domestic manufacturing capabilities for critical materials such as boron and carbon fibers, magnesium, and tantalum for defense applications. 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 Conduct analysis to refine the cross-Service casting and forging strategy and continue to develop and execute projects specified by that strategy. Increase 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. Continue work with the Navy to accelerate planned metalworking process improvement and workforce development efforts,			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023
reconstitute casting and forging-related capabilities for materials processing and welding/joining plus additive manufacturing, develop modern computational tools to support advanced applied metallurgy, and reduce barriers to entry posed by part qualification processes. Work with the Army to improve production and enabling capabilities at key suppliers of aviation and ground combat systems. Work with the Navy and DPA Title III to stand up a second source for large steel plate. Understand the capabilities of, and, where appropriate, expand C&F-related joint/government/industry/academic centers of excellence. Execute 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 OPlans and CONPLANS. 4. Energy Storage and Batteries: continue a series of previous year studies to assess and analyze 1) DoD consumption and purchasing patterns; 2) domestic commercial sources of supply and their capability and capacity to support DoD needs; 3) Identifying opportunities for standardization; and 4) current and emerging supply chain threats to key DoD warfighting capabilities. These efforts will provide a Department-wide inventory of fielded battery systems and costs, centralize information on current and future DoD battery needs and populate a DoD Battery Database. The effort will also assess current and future supply chain risks and associated threats to operational capabilities; Better position DoD to leverage high tech 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. Nine projects started in FY 2023 continue to help drive cost down and increase affordability to field hypersonic weapon systems for the Navy and Army. 6. Emerging Technology Flexible Biomanufacturing: investments to support the expansion of the domestic bioindustrial manufacturing base to include flexible and modular production assets to deliver critical biomaterials and precursors at necessary scale to support DoD operational needs. Initiate: three flexible industrial scale facilities for an estimated five DoD-relevant molecules; five to six new-build flexible pilot scale facilities to rapidly prototype, test, and evaluate an estimated 20 additional molecules relevant to DoD and the bioeconomy; and one first-of-its-kind, domestic, modular biomanufacturing center to enable prototyping and some commercial-scale production of an estimated five DoD-relevant molecules and rapid configuration to advance process optimization and deployable capabilities.			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
7. Microelectronics Secure Packaging – efforts 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 will include: Tooling will be installed, qualified and brought on line to support advanced packaging manufacturing. Targeted processes will include: wafer preparation and wafer bumping capabilities on 300mm substrates, advanced interposer manufacturing capability, Fan-Out Wafer-Level Packaging capability, High Density Build-Up substrates / High Density Interconnect printed circuit boards, advanced 2.5/ 3D packages, substrate and board design, testing (module, package, substrate and board) and thermal management capability. Domestic access and sourcing of materials and chemicals will begin to take shape. Security solutions will be moving toward completion. 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 PDR, 50% progress toward the critical design review, minimum viable product development and delivery. Policy will continue to be developed to ensure full functionality, integration and adoption of EPMS. Radar Frequency (RF) Microelectronics – activity will primarily be focused on 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. FY 2023 to FY 2024 Increase/Decrease Statement: P819 IBAS Baseline net increase of \$48.076 million reflects OSD internal realignment of funds for DoD priorities. Significant issues include increase of \$73.000 million for Microelectronics and Workforce; increase of \$165.000 million for bioindustrial manufacturing; reduction of \$184.000 million for Critical Chemicals and Hypersonics.				
Accomplishments/Planned Programs Subtotals		56.992	588.094	1,017.141
		FY 2022	FY 2023	
Congressional Add: Program Increase		10.000	-	
FY 2022 Accomplishments: Apply to supply chain analysis in multiple sectors including supply chain resiliency, and additional workforce development efforts. Possible partial offset to SBIR/STTR taxes applicable to Congressional Add totals.				
Congressional Add: Advanced Nanomaterials Manufacturing / Metal-organic frameworks		7.500	5.000	
FY 2022 Accomplishments: Expand Supply Chain - No domestic capability exists for mature metal organic frameworks (MOF) compound to meet soldier chemical, biological, radiological, and nuclear filter requirements.				

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
Funds will establish domestic capability to manufacture at scale and incorporate MOF filter media into M61 filters. FY 2023 Plans: Design 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 2022 Accomplishments: Established partnership to prototype and implement automated manufacturing processes for advanced textiles needed for defense use and develop associated workforce curricula and training programs needed for successful industry adoption and use. FY 2023 Plans: Expand partnerships to prototype and implement automated manufacturing processes for advanced textiles needed for defense use and develop associated workforce curricula and training programs needed for successful industry adoption and use.		10.000	7.500
Congressional Add: Industrial Skills FY 2022 Accomplishments: National Imperative for Industrial Skills (NIIS) - Assess requirements, expand recruitment, expand and accelerate training in key sectors as needed.		10.000	-
Congressional Add: Interdisciplinary Center for Advanced Manufacturing Systems FY 2022 Accomplishments: Lower the barriers for entry to small and medium manufacturers to adopt manufacturing capabilities including 5-axis, additive, digital and Internet of Things (IOT) 4.0 capabilities FY 2023 Plans: Continue to expand workforce development projects related to digital engineering and systems engineering technical training programs.		10.000	10.000
Congressional Add: Freeze Dried Plasma FY 2022 Accomplishments: Freeze-dried medical products with greater longevity would increase the opportunity for injured warfighters operating in austere environments to receive transfusions sooner in the process. To optimize transfusion therapy on the battlefield far forward, additional development of manufacturing technology must be done to enable production of freeze-dried pathogen-inactivated plasma, cryoprecipitate, and cryo-depleted plasma, all of which can be used for immediate treatment of wounded service members at the point of injury.		10.000	-
Congressional Add: Lead-free Electronics		7.500	-

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
FY 2022 Accomplishments: Tin-based solders are unable to withstand military operational requirements, resulting in reliability and performance deficiencies. This effort developed alternative solder alloys and delivered a solder performance specification, a DoD solder users' handbook, and an implementation roadmap that can accelerate the transition to lead-free electronics for defense systems.			
Congressional Add: Machine Tooling and Advanced Manufacturing FY 2022 Accomplishments: This effort established a DoD partnership with Department of Energy (DoE) Oak Ridge National Lab (ORNL) called "America's Cutting Edge (ACE)." ACE applies the robust functional capacity of the Manufacturing Demonstration Facility (MDF) as a Hub for a public-private partnership that can leverage an existing \$1.5 billion DoE Research and Development (R&D) Partnership to restore U.S. machine tool prominence. Workforce Component: Accelerate workers into and through training and development pipelines to meet requirements.		20.000	-
Congressional Add: Pilot Mask Technology FY 2022 Accomplishments: Sustain life support supply chains for pilot masks - contracted due to limited investment for pilot masks and related technology. Today's aircraft have surpassed older, obsolete technology.		5.000	-
Congressional Add: Precision Optics Manufacturing FY 2022 Accomplishments: Precision Optics are used in almost every DoD platform but the collapse of the commercial optics community and decades of decreased DoD investment has endangered domestic capability for skilled workers and stable suppliers. Precision Optics Manufacturing provides a multi-prong approach to improve industrial base resilience and expands workforce development programs. FY 2023 Plans: Continue 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.		4.000	10.000
Congressional Add: Submarine Workforce Development FY 2022 Accomplishments: Public private partnership with states mitigating workforce shortfalls within the submarine supply chain. Established partnership to identify workforce needs through industry champions and senior executives who have decision-making authority and are passionate about the submarine industrial sector.		20.000	-
Congressional Add: Weldable Ultra Hard Armor		3.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
FY 2022 Accomplishments: Expand ground vehicle light weight armor supply chain. Develop full-scale manufacturing process for producing an ultra-hard armor that is weldable.			
Congressional Add: Accelerated training in defense manufacturing		5.000	5.000
FY 2022 Accomplishments: Improve the nation's capacity to produce and deliver workers with industrial skills to meet defense technology, acquisition, and operational needs through the demonstration of the potential of the ADTM training program that cuts training time up to 75 percent and can be the replicable model training program for a national network of regional training centers serving the Defense Industrial Base.			
FY 2023 Plans: Continue 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.			
Congressional Add: Advanced Headborne Systems Manufacturing		7.500	5.000
FY 2022 Accomplishments: Conduct prototyping efforts that demonstrate and develop solutions to modernize manufacturing to create better-quality helmets and visors to meet more stringent survivability and weight standards, enabling a more rapid evolution of helmet upgrades to improve protection, reduce rejection rates, and rapidly respond to surge capabilities.			
FY 2023 Plans: Provide open competition and target FY23Q3 for award and kick-off.			
Congressional Add: Carbon/Carbon Industrial Base Enhancement		6.000	3.000
FY 2022 Accomplishments: Development and expansion of the carbon-carbon manufacturing ecosystem for high temperature applications.			
FY 2023 Plans: Continue to increase capacity for carbon-carbon material production for high temperature applications.			
Congressional Add: Career and Technical Education Pilot		10.000	10.000
FY 2022 Accomplishments: Conduct prototyping efforts that expand career and technical education in industrial skills.			
FY 2023 Plans: Continue to conduct prototyping efforts that expand career and technical education in industrial skills.			
Congressional Add: Defense Supply Chain Enhancement		10.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
FY 2022 Accomplishments: Develop and enhance regional defense supply chain workforce in manufacturing technologies and processes.			
Congressional Add: Digital Engineering Enabled Workforce Development		7.000	-
FY 2022 Accomplishments: Develop and deploy digital engineering centric academic programs to support enhanced digital manufacturing skills and talent development for the defense industrial base.			
Congressional Add: Digital Thread Manufacturing Demonstration		8.000	8.000
FY 2022 Accomplishments: Develop and execute 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.			
FY 2023 Plans: Continue 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: Enhanced Digital Capabilities		7.000	-
FY 2022 Accomplishments: Develop and deploy digital engineering centric academic programs to support enhanced digital manufacturing skills and talent development for the defense industrial base.			
Congressional Add: Heavy Rare Earth Elements Program		80.000	-
FY 2022 Accomplishments: Efforts to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Continue the design and build of two domestic HREE processing lines 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.			
Congressional Add: Rare Earth Elements and Critical Minerals Recovery Technique Demonstration		3.000	-
FY 2022 Accomplishments: Development and demonstration of industrial scale processes related to recovering rare earth elements from mining byproducts.			
Congressional Add: Rare Earth Separation Technologies		4.000	-
FY 2022 Accomplishments: Development and demonstration of industrial scale processes related to separating rare earth elements from raw ore and/or end products through recycling.			
Congressional Add: Resilient Manufacturing Ecosystem		2.500	5.000

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
FY 2022 Accomplishments: Deployment of a micro-defense additive manufacturing ecosystem focused on transitioning materials, processes, equipment and people into a production environment.			
FY 2023 Plans: Continue to expand micro-defense additive manufacturing ecosystem focused on transitioning materials, processes, equipment and people into a production environment.			
Congressional Add: Ruggedized Transceivers		10.000	7.500
FY 2022 Accomplishments: Establish a reliable domestic supply chain for fiber optic transceivers capable of supporting current and future DoD program demands.			
FY 2023 Plans: Contract review, negotiation, initial contract award and project kick off. The FY23 effort will establish and begin the qualification of manufacturing capacity of aerospace-grade fiber optic transceivers capable of data transport of up to 200 Gbps over multimode fiber.			
Congressional Add: Systems Engineering Technician Education Initiative		0.550	-
FY 2022 Accomplishments: Advance training in digital engineering and manufacturing methods and processes through the creation of a 2-year degree in Systems Engineering Technology.			
Congressional Add: Advanced Design and Engineering Capabilities for Small Businesses		-	12.000
FY 2023 Plans: Establish 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.			
Congressional Add: Advanced Electrochromic Manufacturing Program		-	5.000
FY 2023 Plans: Establish partnerships to prototype and implement the production of advanced electrochromic substances for use in military applications.			
Congressional Add: Advanced Thermoplastics Demonstration		-	4.000
FY 2023 Plans: Establish partnerships to develop and implement training programs in the creation and application of advanced thermoplastic compounds in military systems.			
Congressional Add: Aluminum Armor Plating		-	1.500
FY 2023 Plans: Establish partnerships to prototype and implement the production of advanced aluminum armor plating for use in military applications.			
Congressional Add: Automated Integrated Metrology		-	5.000

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>	
		FY 2022	FY 2023
FY 2023 Plans: Leverage 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.			
Congressional Add: Demonstration Scale of REE from Coal Ash Technology FY 2023 Plans: Establish 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.		-	30.000
Congressional Add: Digital Design and Engineering Demonstration FY 2023 Plans: Establish 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 Plans: Conduct prototyping efforts to expand U.S. defense workforce.		-	20.000
Congressional Add: Hybrid Manufacturing for Lightweight Defense Components FY 2023 Plans: Leverage 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 Plans: Focus on sub-tier manufactures for munitions production.		-	20.000
Congressional Add: On-Shore Advanced Microelectronic Packaging for Strategic Mission Enablement FY 2023 Plans: Develop advanced packaging manufacturing technology and capabilities to address gaps in the domestic ecosystem.		-	40.000
Congressional Add: On-Shoring Navy Battery Cells FY 2023 Plans: Develop 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 Plans: Conduct prototyping effort to build partnerships for manufacturing training program.		-	7.000
Congressional Add: Systems Engineering Technology (SET) Apprenticeship and Internship Program		-	1.200

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023												
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>	Project (Number/Name) 819 / <i>Industrial Base Analysis and Sustainment</i>												
		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="width:50%;">FY 2022</td> <td style="width:50%;">FY 2023</td> </tr> <tr> <td colspan="3">FY 2023 Plans: Continue to expand systems engineering technician training program.</td> </tr> <tr> <td align="right" colspan="3">Congressional Adds Subtotals</td> </tr> <tr> <td></td> <td align="center">277.550</td> <td align="center">242.200</td> </tr> </table>		FY 2022	FY 2023	FY 2023 Plans: Continue to expand systems engineering technician training program.			Congressional Adds Subtotals				277.550	242.200
	FY 2022	FY 2023												
FY 2023 Plans: Continue to expand systems engineering technician training program.														
Congressional Adds Subtotals														
	277.550	242.200												
C. Other Program Funding Summary (\$ in Millions) N/A Remarks NA D. Acquisition Strategy NA														

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense												Date: March 2023			
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)				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
IBAS Baseline Program Efforts - Prior Years	C/Various	various : various	289.723	9.800		-		-		-		-	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	47.028	91.794	Mar 2023	234.500	Jun 2023	263.500	Jun 2024	-		263.500	Continuing	Continuing	-
Critical Chemicals: Heavy Rare Earth Elements Supply Chain Resiliency	C/FFP	MP Mine Operations LLC & Lynas LLC : CA & Texas	5.363	36.500	Jun 2023	50.000	Jun 2023	227.692	Sep 2024	-		227.692	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	Mar 2023	45.661	Sep 2023	20.055	Mar 2024	-		20.055	Continuing	Continuing	-
Castings and Forgings (Advanced Machine Tools)	FFRDC	Oakridge National Laboratories : Oakridge, TN	29.667	21.507	Mar 2022	32.500	Jun 2023	172.300	Jun 2024	-		172.300	Continuing	Continuing	-
Microelectronics	C/FFP	pending : pending	-	8.000	Jun 2022	96.204	Jun 2023	310.284	Jun 2024	-		310.284	Continuing	Continuing	-
Hypersonics Weapons Components	C/FFP	TBD : TBD	-	-		118.000	Jun 2023	10.000	Jun 2024	-		10.000	Continuing	Continuing	-
Congressional Adds FY23 - details pending	C/TBD	TBD : TBD	-	-		242.200		-		-		-	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense												Date: March 2023			
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)				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
Subtotal			371.781	325.489		819.065		1,003.831		-		1,003.831	Continuing	Continuing	N/A
Support (\$ 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
Joint Army NASA Air Force (JANNAF) Executive Committee Support	C/FFP	Johns Hopkins : MD	0.628	0.266	Sep 2022	0.265	Sep 2023	0.134	Sep 2023	-		0.134	Continuing	Continuing	-
Subtotal			0.628	0.266		0.265		0.134		-		0.134	Continuing	Continuing	N/A
Management Services (\$ 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
OSD SETA Support	Various	Frontier Technologies Inc : VA	18.939	3.936	Nov 2021	5.271	Mar 2023	7.403	Mar 2024	-		7.403	Continuing	Continuing	-
Army/Navy Program Management	MIPR	DEVCOM CBC, NSWCR Crane, PEO Stri : IL/IN/FL	3.012	3.475	Dec 2021	4.317	Dec 2022	4.397	Dec 2023	-		4.397	Continuing	Continuing	-
IBAS Technical Teams Support	C/FFP	Booz Allen Hamilton : Alexandria, VA	-	1.376	Jun 2022	1.376	Mar 2023	1.376	Dec 2023	-		1.376	Continuing	Continuing	-
Subtotal			21.951	8.787		10.964		13.176		-		13.176	Continuing	Continuing	N/A
			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			394.360	334.542		830.294		1,017.141		-		1,017.141	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense											Date: March 2023				
Appropriation/Budget Activity						R-1 Program Element (Number/Name)						Project (Number/Name)			
0400 / 7						PE 0607210D8Z / Industrial Base Analysis and Sustainment Support						819 / Industrial Base Analysis and Sustainment			

	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
All Sectors																												
Workforce All Efforts																												
Non-Workforce All Efforts																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Office of the Secretary Of Defense			Date: March 2023
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

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

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense										Date: March 2023		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>				Project (Number/Name) 821 / <i>Microelectronics</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
821: <i>Microelectronics</i>	3.750	7.700	-	-	-	-	-	-	-	-	0.000	11.450
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification In FY 2023, Microelectronics funding for the Defense Microelectronics Cross-Function Team effort transitioned from Program Element 0607210D8 to Program Element 0604294D8Z Microelectronics under the Office of the Undersecretary of Defense for Research and Engineering (OUSD(R&E)).												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2022	FY 2023	FY 2024
Title: Microelectronics Cross Functional Team										7.700	-	-
Description: The Cross-Functional Team (CFT) was established effective January 2021 to develop a DoD strategy, implementation, and transition plan to increase efficiency and minimize vulnerabilities within the Department's microelectronic supply chain, strengthening the domestic microelectronics Industrial Base and efforts to cost-effectively modernize and sustain DoD systems.												
Accomplishments/Planned Programs Subtotals										7.700	-	-
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 Office of the Secretary Of Defense												Date: March 2023			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 0607210D8Z / <i>Industrial Base Analysis and Sustainment Support</i>						Project (Number/Name) 821 / <i>Microelectronics</i>			
Support (\$ 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
Microelectronics Studies, Strategic Initiatives, and Policy Assessments	C/FFP	CTC Aero, : Port Jefferson, NY	1.818	3.220	Dec 2021	-		-		-		-	0.000	5.038	-
Microelectronics Study	FFRDC	Institute for Defense Analysis : VA	-	0.500	Jan 2022	-		-		-		-	0.000	0.500	-
Subtotal			1.818	3.720		-		-		-		-	0.000	5.538	N/A
Management Services (\$ 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
Reimburse Program Management Support from Various DoD Organizations	MIPR	Various : Various	0.668	1.169	Dec 2021	-		-		-		-	0.000	1.837	-
SETA Program Management Support via FFRDC	FFRDC	Aerospace : CA	0.400	0.870	Dec 2021	-		-		-		-	0.000	1.270	-
SETA Program Management Support Contract	C/CPFF	Various : Various	0.829	1.590	Feb 2022	-		-		-		-	0.000	2.419	-
Expenses, Building Rent & Pentagon Force Protection Services	MIPR	GSA : VA	0.035	0.351	Nov 2021	-		-		-		-	0.000	0.386	-
Subtotal			1.932	3.980		-		-		-		-	0.000	5.912	N/A
			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			3.750	7.700		-		-		-		-	0.000	11.450	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense										Date: March 2023			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
0400 / 7					PE 0607210D8Z / Industrial Base Analysis and Sustainment Support					821 / Microelectronics			

	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
Microelectronics																												
Defense Microelectronics Cross-Functional Team																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / Industrial Base Analysis and Sustainment Support	Project (Number/Name) 821 / Microelectronics

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Microelectronics				
Defense Microelectronics Cross-Functional Team	1	2022	4	2023