

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy											Date: April 2022	
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 0605502N / Small Business Innovative Research							
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	491.676	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	491.676
1812: NAVAIR SBIR Program	0.000	113.368	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	113.368
1813: SPAWAR SBIR Program	0.000	23.030	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	23.030
1814: NAVSEA SBIR Program	0.000	94.223	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	94.223
1824: USMC SBIR Program	0.000	15.610	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.610
1862: SSPO SBIR Program	0.000	19.299	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.299
1863: NAVSUP SBIR Program	0.000	2.200	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.200
1864: ONR SBIR Program	0.000	123.429	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	123.429
1865: SBIR ADMIN - ONR	0.000	9.036	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.036
2204: Small Business Tech Transfer Program	0.000	39.561	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.561
2240: SBIR ADMIN - USMC	0.000	0.944	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.944
2241: SBIR ADMIN - SPAWAR	0.000	1.317	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.317
2242: SBIR ADMIN - NAVSEA	0.000	8.111	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.111
2243: SBIR ADMIN - NAVAIR	0.000	6.980	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	6.980
2244: SBIR ADMIN - NAVFAC	0.000	0.100	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.100
2248: SBIR ADMIN - SSPO	0.000	0.980	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.980
3201: SBIR CRP - NAVAIR	0.000	1.177	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.177
3202: SBIR CRP - SPAWAR	0.000	0.222	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.222
3203: SBIR CRP - NAVSEA	0.000	0.981	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.981
3204: SBIR CRP - USMC	0.000	0.159	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.159
3205: SBIR CRP - ONR	0.000	1.530	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.530
3213: NAVAIR STTR Program	0.000	16.558	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	16.558
3235: Marine Corps STTR Program	0.000	1.120	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.120
3344: SBIR Trial Admin Program	0.000	11.741	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.741

UNCLASSIFIED

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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy</i> / BA 6: <i>RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>
---	---

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR and .45% for STTR. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	491.676	0.000	0.000	-	0.000
Total Adjustments	491.676	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.070	0.000			
• SBIR/STTR Transfer	491.749	0.000			
• Rate/Misc Adjustments	-0.003	0.000	0.000	-	0.000

Change Summary Explanation

Technical: Not applicable.
Schedule: Not applicable.

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1812 / <i>NAVAIR SBIR Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1812: <i>NAVAIR SBIR Program</i>	0.000	113.368	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	113.368
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: NAVAIR SBIR Program	113.368	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Digital Engineering (\$8.2 million): Digital engineering investments in digital twin technologies; digital modeling and simulation of maneuvering hypersonic weapons; advanced electromagnetic modeling and analysis tools for complex aircraft structures; and multi-physics based simulation tools for rapid heat damage assessment of composite aircraft structures.					
- Maintenance/Sustainment/Readiness (\$18.9 million): Investments in analysis and modeling of erosion in gas-turbine grade ceramic matrix composites (CMC); digital twin technologies to improve mission readiness and sustainment; data analytics tools for the Automated Logistics Environment (ALE) and aircraft component fatigue life management; and rapid repair of corroded fastener holes.					
- Modernization (\$3.2 million): Investments in modernizing software tools for statistical radar signature descriptions; carrier-based precision ship-relative navigation guidance; flare ignition composition with low moisture susceptibility; precision high altitude sonobuoy emplacement; Minotaur maritime "Patterns of Life" AI applications with data fusion in the cloud; microwave photonic transceiver; next-generation encrypted wireless intercom waveform; and mission success assessment and mitigation recommendations using a cognitive system.					
FY 2023 Base Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1812 / <i>NAVAIR SBIR Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Digital Engineering (\$9.0 million): Priorities include investments in the areas of digital tools and data supporting aircraft readiness and sustainment; Model-Based Systems Engineering (MBSE) for development efforts; and advanced modeling and simulation techniques to improve capability development, engineering analysis, training, readiness, test and experimentation methods on naval aviation platforms.					
- Maintenance/Sustainment (\$14.0 million): Priorities include investments in technologies to improve the agility of Naval Aviation logistics; improvements to digital tools and data that could translate into actionable information benefitting sustainment and readiness; agile and adaptive maintenance systems; technologies to advance supply and material handling on the flight deck; and corrosion prevention, prediction, and detection technology.					
- Modernization (\$3.2 million): Priorities include investments in artificial intelligence and machine learning that will help naval aviation operate more effectively and efficiently and improve decision-making speed; weapons system autonomy; quantum computing, sensors, metrology, communications, and network technologies; next-generation microelectronic technologies to enhance lethality and meet demand for more inexpensive and lightweight equipment; and hypersonic technology including thermal management, sensors and subsystems, flight separation, propulsion systems and supportability.					
<i>FY 2023 OCO Plans:</i> N/A					
Accomplishments/Planned Programs Subtotals	113.368	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1813 / SPAWAR SBIR Program
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1813: SPAWAR SBIR Program	0.000	23.030	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	23.030
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SPAWAR SBIR Program	23.030	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: -Communications and GPS Navigations (\$4.7 million): Support to interoperable, cost-effective, communications and position, navigation, and timing services, enabling information warfare for maritime forces. Specific efforts include Advanced Radio Frequency (RF) Photonic Integrated Circuit (PIC), Platform is the Antenna, Rapid Reconstitution of Communications and Compact Hardware Solutions, Wideband Interference Suppression for Dynamic-Range Optimization (WISDOM), Positioning Using Magnetic Anomalies Correlation of Earth (PUMACE), Automated High Frequency Communications Planner, Unitary Braid Division Multiplexing (UBDM)					
FY 2023 Base Plans: -Modernization (\$6 million): Modernization of Multifunctional Information Distribution System (MIDS) components, Mobile User Objective Systems (MUOS), and Navy Service Desk (Navy 311) Help Desk operations.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	23.030	0.000	0.000	0.000	0.000

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

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1813 / <i>SPAWAR SBIR Program</i>

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

Remarks

D. Acquisition Strategy
N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1814 / NAVSEA SBIR Program
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1814: NAVSEA SBIR Program	0.000	94.223	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	94.223
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: NAVSEA SBIR Program	94.223	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Digital Engineering (\$2.6 million): Chart data overlay of live video for submarine navigation, wideband acoustic signature capability for next generation mobile Anti-Submarine Warfare (ASW) training target, autonomous draft determination, propulsor geometry certification system, ShockIQ (a U.S. Navy Ship Shock Tool), and automated function point analysis.					
- Maintenance/Sustainment/Readiness (\$7.1 million): Valid performance measures for multi-tasking environments, motion mitigation technologies for shipboard additive manufacturing, extended life and low maintenance aircraft tie down fitting, high strength composite system for ships, next generation laminated bus bar technologies, flight deck tie downs, wireless sensing to improve submarine machinery health monitoring, nondestructive detection of flaws through thick polymers using electromagnetic imaging technologies, intelligent corrosion simulation and design tool, Nondestructive Evaluation (NDE) of Coated Multi-layered Fiber Reinforced Polymer (FRP) components, efficient data management to improve navy maintenance and ship operational readiness, lightweight dive hand-held underwater hydraulic friction stud welding system for 5000 series aluminum, and autonomous or remotely-operated maintenance of ships' tanks.					
-Modernization (\$.2 million): Improvements to composite structures for missile systems.					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1814 / NAVSEA SBIR Program

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>-Cybersecurity (\$.8 million): Android security toolkit, Machine Learning (ML) and Artificial Intelligence (AI) to develop capabilities and impact mission success.</p> <p><i>FY 2023 Base Plans:</i></p> <p>- Digital Engineering (\$1.12 million): Design for Additive Manufacturing (DfAM) Risk Toolset, shipboard advanced metal manufacturing machine, and distributed mission effectiveness and readiness management system.</p> <p>- Maintenance/Sustainment (\$2.24 million): universal environmental controls for AM Machines, Flexible Unmanned Vehicle Stowage system, Well Deck Securing System for landing craft utility, radar absorbing material maintainability improvements, low hazard heat pump for distributed cooling, and new water-blocking chemicals/materials for zero longitudinal seawater flow through navy outboard cables.</p> <p>- Modernization (\$.35 million): Modernize Navy fan-coil assembly.</p> <p><i>FY 2023 OCO Plans:</i> N/A</p>					
Accomplishments/Planned Programs Subtotals	94.223	0.000	0.000	0.000	0.000

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

Remarks

D. Acquisition Strategy
N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1824 / <i>USMC SBIR Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1824: <i>USMC SBIR Program</i>	0.000	15.610	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.610
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: USMC SBIR Program	15.610	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Digital Engineering (\$1 million): Technologies to improve USMC War gaming capabilities, and autonomous capabilities for USMC amphibious systems.					
- Maintenance/Sustainment/Readiness (\$1 million): Improved tactical vehicle maintenance capabilities (Brakes, armor).					
- Modernization (\$6 million): Modernization of Non-Lethal Weapon Systems and amphibious warfare capabilities from Navy ships to shore.					
FY 2023 Base Plans:					
- Digital Engineering (\$1.5 million): Continued improvements to war gaming capabilities and continued development of autonomous capabilities.					
- Maintenance/Sustainment (\$1 million): More efficient power generation systems.					
- Modernization (\$6 million): Airborne delivery capabilities (gliders and low altitude parachutes), modernization of Non-Lethal Weapon Systems, and amphibious warfare capabilities from Navy ships to shore.					
FY 2023 OCO Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1824 / <i>USMC SBIR Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
N/A					
Accomplishments/Planned Programs Subtotals	15.610	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1862 / <i>SSPO SBIR Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1862: <i>SSPO SBIR Program</i>	0.000	19.299	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.299
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SSPO SBIR Program	19.299	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Nuclear (\$2.5 million): Super-luminescent Diodes (SLD), split ratio fine-tuning feature for Integrated Optical Chip (IOC) in IFOG, CMOS Photon Imager, radiation-induced upset circumvention & recovery for modern electronic systems, high power solid state electronic switch for use in exploding foil initiator applications, and remote analog-to-digital translator for use in submarine launched missile applications.					
- Hypersonics (\$1.4 million): Multiband antenna development, rapid response small launcher technology, upstream energy deposition for increased speed precise attitude/AoA control, high efficiency/ low SWaP solid state power amplifiers for sensor applications, and real-time simulation of RF signal returns from complex targets and backgrounds.					
FY 2023 Base Plans:					
- Nuclear (\$1.9 million): Continued advanced development and upgrades in support of the Navy's next generation submarine-launched missile (SLBM), the Trident D5 Life-Extension 2 (D5LE2) system. Upgrades in support of Nuclear Weapons Security (NWS) facilities.					
- Hypersonics (\$1.5 million): Continued advanced development and upgrades for hypersonics related technologies, capabilities, and prototype systems in support of a Hypersonic Glide Body and booster.					
FY 2023 OCO Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1862 / <i>SSPO SBIR Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
N/A					
Accomplishments/Planned Programs Subtotals	19.299	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1863 / NAVSUP SBIR Program
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1863: NAVSUP SBIR Program	0.000	2.200	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.200
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: NAVSUP SBIR Program	2.200	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: - Modernization (\$1.5 million): Prototype development of an electronic Clearinghouse for Subsistence Order & Receipt Transactions (eCSORT).					
FY 2023 Base Plans: - Modernization (\$1.5 million): Investment in supply chain processes in the areas of data sciences, logistics IT application development, and quality engineering. Research will be conducted on emerging supply chain technologies and methods that could be adopted to support the DON/DoD material supply chain.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	2.200	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1864 / <i>ONR SBIR Program</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1864: <i>ONR SBIR Program</i>	0.000	123.429	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	123.429
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2021. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: ONR SBIR Program	123.429	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Digital Engineering (\$3 million): Improved reliability of composites pi-joints for use in primary aircraft structures, requirements management tool for design of effective human machine systems with evolving technologies, and Digital Twins to Enable Training (DTET).					
- Training/Warfighter Performance (\$5 million planned): Advanced technologies (including AR/VR) for manpower, personnel, training; education and advanced battlefield communications system in operations and training; Live, Virtual, and Constructive Cyber Battle Damage Assessment for Training; and Mentoring and Responsive Learning through Intelligent Nautical Skill-modeling, Prompting, Intervention, and Feedback during Instructor-Controlled Exercises (MARLINSPIKE)					
- Maintenance/Sustainment/Readiness (\$3 million): Efficient Biofouling Inhibition in Seawater Heat Exchangers by Novel Sol-Gel Coatings, Intelligent Laser System for CBM+ of Naval Platforms, and Fuel Efficiency Improvements for Amphibious Vehicles.					
- Artificial Intelligence/Machine Learning: (\$3 million): Explainability and Terrain Reasoning for Autonomy (EXTRA); sensors and autonomy for unmanned maritime missions; and machine clustered and labeled decision tracks derived from artificial intelligence-enabled intent recognition.					
FY 2023 Base Plans:					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1864 / <i>ONR SBIR Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Digital Engineering (\$5 million): Improved reliability of composites pi-joints for use in primary aircraft structures, requirements management tool for design of effective human machine systems with evolving technologies, and Digital Twins to Enable Training (DTET).					
- Training/Warfighter Performance (\$2 million): Next-generation rebreather and next generation infantry heads-up displays for close-air support.					
- Artificial Intelligence/Machine Learning: (\$2 million): Artificial Intelligent (AI)/Machine Learning for additive manufacturing defect detection and AI-driven multi-intelligence multi-attribute metadata enabling all-domain preemptive measures.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	123.429	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 1865 / <i>SBIR ADMIN - ONR</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1865: <i>SBIR ADMIN - ONR</i>	0.000	9.036	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.036
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovation Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR Admin-ONR	9.036	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovation Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovation Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	9.036	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy										Date: April 2022		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>				Project (Number/Name) 2204 / <i>Small Business Tech Transfer Program</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2204: <i>Small Business Tech Transfer Program</i>	0.000	39.561	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.561
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Technology Transfer (STTR) program requires Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 0.45% for STTR. This funds cooperative R&D between small businesses and research institutions. The program goals are to create vehicles from moving ideas from research institutions to market; enable researchers to pursue commercial application of technologies; and bridge funding gap between basic research and commercial product.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Small Business Tech Transfer Program	39.561	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: - Digital Engineering (\$1.5 million): Data-driven hypersonic turbulence modeling toolset and rapid personal protective equipment (PPE) design exploration. - Maintenance/Sustainment/Readiness (\$1.5 million): Enhanced thermal, mechanical, and physical properties of ceramic matrix composites through novel additives and lidar-like 3d imaging system for accurate scene understanding.					
FY 2023 Base Plans: - Modernization (\$3.5 million): Priorities include employing machine learning to accelerate high temperature corrosion-resistant materials design, advanced thermal management of power converters, and self-healing ship systems.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	39.561	0.000	0.000	0.000	0.000

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

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2204 / <i>Small Business Tech Transfer Program</i>

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

Remarks

D. Acquisition Strategy
N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2240 / <i>SBIR ADMIN - USMC</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2240: <i>SBIR ADMIN - USMC</i>	0.000	0.944	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.944
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN	0.944	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.944	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2241 / <i>SBIR ADMIN - SPAWAR</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2241: <i>SBIR ADMIN - SPAWAR</i>	0.000	1.317	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.317
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN	1.317	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.317	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2242 / <i>SBIR ADMIN - NAVSEA</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2242: <i>SBIR ADMIN - NAVSEA</i>	0.000	8.111	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.111
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN	8.111	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	8.111	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2243 / <i>SBIR ADMIN - NAVAIR</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2243: <i>SBIR ADMIN - NAVAIR</i>	0.000	6.980	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	6.980
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN - NAVAIR	6.980	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	6.980	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2244 / <i>SBIR ADMIN - NAVFAC</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2244: <i>SBIR ADMIN - NAVFAC</i>	0.000	0.100	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.100
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN	0.100	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.100	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 2248 / <i>SBIR ADMIN - SSPO</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2248: <i>SBIR ADMIN - SSPO</i>	0.000	0.980	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.980
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR ADMIN	0.980	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 Base Plans: Continue Small Business Innovative Research (SBIR) Administration. Manage the program, technical efforts and award contracts related to SBIR.					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.980	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3201 / <i>SBIR CRP - NAVAIR</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3201: <i>SBIR CRP - NAVAIR</i>	0.000	1.177	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.177
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public law No. 109-163 allowed up to 1% of the SBIR to be used to fund the administrative costs of the Commercialization Pilot Program (CPP). The pilot program transitioned to the Commercialization Readiness Program (CRP). CRP is part of the SBIR and STTR Reauthorization Act of 2012 (P. L. 112-81, Section 5001).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: SBIR CRP - NAVAIR	1.177	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.177	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3202 / <i>SBIR CRP - SPAWAR</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3202: <i>SBIR CRP - SPAWAR</i>	0.000	0.222	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.222
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public law No. 109-163 allowed up to 1% of the SBIR to be used to fund the administrative costs of the Commercialization Pilot Program (CPP). The pilot program transitioned to the Commercialization Readiness Program (CRP). CRP is part of the SBIR and STTR Reauthorization Act of 2012 (P. L. 112-81, Section 5001).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: New Accomplishment/Planned Program Entry	0.222	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.222	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3203 / <i>SBIR CRP - NAVSEA</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3203: <i>SBIR CRP - NAVSEA</i>	0.000	0.981	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.981
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public law No. 109-163 allowed up to 1% of the SBIR to be used to fund the administrative costs of the Commercialization Pilot Program (CPP). The pilot program transitioned to the Commercialization Readiness Program (CRP). CRP is part of the SBIR and STTR Reauthorization Act of 2012 (P. L. 112-81, Section 5001).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: New Accomplishment/Planned Program Entry	0.981	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.981	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3204 / <i>SBIR CRP - USMC</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3204: <i>SBIR CRP - USMC</i>	0.000	0.159	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.159
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public law No. 109-163 allowed up to 1% of the SBIR to be used to fund the administrative costs of the Commercialization Pilot Program (CPP). The pilot program transitioned to the Commercialization Readiness Program (CRP). CRP is part of the SBIR and STTR Reauthorization Act of 2012 (P. L. 112-81, Section 5001).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: New Accomplishment/Planned Program Entry	0.159	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.159	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3205 / <i>SBIR CRP - ONR</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3205: <i>SBIR CRP - ONR</i>	0.000	1.530	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.530
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Section 252 of the 2006 NDAA Public law No. 109-163 allowed up to 1% of the SBIR to be used to fund the administrative costs of the Commercialization Pilot Program (CPP). The pilot program transitioned to the Commercialization Readiness Program (CRP). CRP is part of the SBIR and STTR Reauthorization Act of 2012 (P. L. 112-81, Section 5001).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: New Accomplishment/Planned Program Entry	1.530	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.530	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3213 / <i>NAVAIR STTR Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3213: <i>NAVAIR STTR Program</i>	0.000	16.558	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	16.558
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Technology Transfer (STTR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$1,000,000,000 to set aside 0.45% for STTR in FY 2021. This funds cooperative R&D between small businesses and research institutions. The program goals are to create vehicles from moving ideas from research institutions to market; enable researchers to pursue commercial application of technologies; and bridge funding gap between basic research and commercial product.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: NAVAIR STTR Program	16.558	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans:					
- Digital Engineering (\$1.2 million): Investments in digital twin technologies for additive manufacturing; advanced electromagnetic modeling and analysis tools for complex aircraft structures; and improved physics modeling for sand particulate tracking in gas turbine engines.					
- Maintenance/Sustainment/Readiness (\$5.8 million): Investments in analysis and modeling of erosion in gas-turbine grade ceramic matrix composites (CMC); non-destructive testing capability to detect degraded strength of parachute webbing; and machine learning tools to optimize metal additive manufacturing of aircraft components.					
FY 2023 Base Plans:					
- Digital Engineering (\$3.2 million): Priorities include investments in the areas of digital tools, data, and modeling capabilities supporting aircraft readiness and sustainment; and modeling and analysis tools for complex aircraft structures and systems.					
- Maintenance/Sustainment (\$4.1 million): Priorities include investments in technologies to improve the agility of Naval Aviation logistics; improvements to digital tools and data that could translate into actionable information					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3213 / <i>NAVAIR STTR Program</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
benefitting sustainment and readiness; agile and adaptive maintenance systems; technologies to advance supply and material handling on the flight deck; and corrosion prevention, prediction, and detection technology. FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	16.558	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3235 / <i>Marine Corps STTR Program</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3235: <i>Marine Corps STTR Program</i>	0.000	1.120	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.120
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Technology Transfer (STTR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$1,000,000,000 to set aside 0.45% for STTR in FY 2021. This funds cooperative R&D between small businesses and research institutions. The program goals are to create vehicles from moving ideas from research institutions to market; enable researchers to pursue commercial application of technologies; and bridge funding gap between basic research and commercial product.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Marine Corps STTR Program	1.120	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: - Digital Engineering (\$1 million): Better modeling of vehicle occupant's vulnerability to kinetic threats to improve design.					
FY 2023 Base Plans: - Modernization (\$1 million): Lighter weight / improved durability Battle Dress Uniforms (BDU).					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	1.120	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605502N / <i>Small Business Innovative Research</i>	Project (Number/Name) 3344 / <i>SBIR Trial Admin Program</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3344: <i>SBIR Trial Admin Program</i>	0.000	11.741	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.741
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) program requires each Federal agency that has an extramural budget for Research and Development (R&D) in excess of \$100,000,000 to set aside 3.2% for SBIR in FY 2020. This funds R&D at small businesses. The program goals are to stimulate technological innovation; increase small business participation in federally funded R&D; foster participation by minority and disadvantaged firms in technological innovation; and increase private sector commercialization of federal R&D.

This project provides funding for the pilot administrative program authorized by the FY2012 National Defense Authorization Act (SEC. 5141. PILOT TO ALLOW FUNDING FOR ADMINISTRATIVE, OVERSIGHT, and CONTRACT PROCESSING COSTS).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: New Accomplishment/Planned Program Entry	11.741	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2022 Plans: N/A					
FY 2023 Base Plans: N/A					
FY 2023 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	11.741	0.000	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A