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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Air Force **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3620F: <i>Research, Development, Test &amp; Evaluation, Space Force / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	20.000	0.000	20.000	0.000	0.000	0.000	0.000	0.000	20.000
640016: <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>	-	0.000	0.000	16.000	0.000	16.000	0.000	0.000	0.000	0.000	0.000	16.000
646601: <i>Rocket Cargo</i>	-	0.000	0.000	4.000	0.000	4.000	0.000	0.000	0.000	0.000	0.000	4.000

**Note**  
 This program, BA 4, PE 1203955SF, project , Point to Point Delivery (P2PD), is a new start.

Program 1203955SF's name has been changed from Space Access, Mobility, and Logistics to "Servicing, Mobility, and Logistics" to clearly delineate this program and mission from previously established Space Access / Launch program elements within the Assured Access to Space (AATS) portfolio e.g. National Security Space Launch (Space) - EMD which enable RDT&E in support of spacelift activities within the AATS portfolio.

BPAC 646601's name has been changed to Point to Point Delivery (P2PD). Prior years' funding for P2PD's air drop mission development was executed by AFRL adjacent to the Rocket Cargo Vanguard program within PE 0603032F / Future AF Integrated Technology Demos (e.g., 26.6 in FY2022, 28.9 in FY2023).

BPAC 640016's name has been changed to On-Orbit Servicing, Mobility, and Logistics (OOSML). Prior years' funding for On-Orbit Servicing, Mobility & Logistics was executed within PE 1206853SF (i.e., 16.9M in FY2022 and 30M in FY2023).

**A. Mission Description and Budget Item Justification**

The Servicing, Mobility, and Logistics (SML) program identifies and closes space related mobility and logistics capability gaps to facilitate integration and employment of on-orbit servicing and mobility for prepared and unprepared spacecraft and logistics in, from, and through space. The Servicing, Mobility, and Logistics mission areas include but are not limited to on-orbit refueling/repair/upgrade/assembly/manufacturing; orbit repositioning; sustained maneuver; autonomous Rendezvous, Proximity Operations & Docking (RPOD); beyond geostationary orbit (XGEO) operations; and sub-orbital and orbital point-to-point delivery operations.

The near-term focus of the SML program (2025 through 2026) is to establish the foundational capability areas through RDT&E, technology demonstrations, operational integration, and fielding of Point to Point Delivery (P2PD) services and on-orbit mobility services, to include refueling. The P2PD project will advance and integrate technology developed within the Rocket Cargo Vanguard program to demonstrate an airdrop delivery capability. The On-Orbit Servicing, Mobility, & Logistics (OOSML) project will integrate commercially available servicing technology into operational capabilities including prototyping of modified commercial off the shelf (COTS) systems and services.

The SML program provides a cost-effective vehicle to cultivate commercial space systems that have achieved high Technology Readiness Level (TRL) that can be leveraged to meet the needs of DoD components. Activities include system engineering technology maturation, tactics development required for operational integration, prototyping and test and evaluation required for technology transition to effective operational employment.

The SML program will mature, integrate, and transition space system demonstrations and prototypes in order to:

- Rapidly address identified capability gaps with emergent technologies

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Air Force	<b>Date:</b> March 2024
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<b>Appropriation/Budget Activity</b> 3620F: <i>Research, Development, Test &amp; Evaluation, Space Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>
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- Focus the integration of Science & Technology (S&T) innovations into operational capabilities and transition those capabilities to service acquisitions or space programs of record
- Accelerate technical maturation of emerging technologies to close high-priority capability gaps to secure US overmatch against pacing threats
- Provide targeted investment in the space industrial base to support U.S. national security in a great power competition

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Servicing, Mobility, and Logistics capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2023</u></b>	<b><u>FY 2024</u></b>	<b><u>FY 2025 Base</u></b>	<b><u>FY 2025 OCO</u></b>	<b><u>FY 2025 Total</u></b>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	20.000	0.000	20.000
Total Adjustments	0.000	0.000	20.000	0.000	20.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	20.000	0.000	20.000

**Change Summary Explanation**

Program element was established in FY25 to resource development and integration activities regarding space Servicing, Mobility, and Logistics systems including but not limited to refueling systems risk-reduction, Rocket Cargo Advance Mission development, and other technically mature on-orbit SML platforms and their integration into the burgeoning on-orbit SML family of systems.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Air Force										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 3620F / 4					<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>				<b>Project (Number/Name)</b> 640016 / <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
640016: <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>	-	0.000	0.000	16.000	0.000	16.000	0.000	0.000	0.000	0.000	0.000	16.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

BPAC 640016's name has been changed to On-Orbit Servicing, Mobility, and Logistics (OOSML). Prior years' funding for On-Orbit Servicing, Mobility & Logistics (OOSML) was executed within PE 1206853SF (e.g., ~16.9M in FY2022 and \$30M in FY2023)

**A. Mission Description and Budget Item Justification**

On-Orbit Servicing, Mobility, and Logistics (OOSML) advances neglected support capabilities in the space domain, ensuring asset availability to the warfighter. The initial thrust for OOSML is a service architecture ensuring prepared systems can replenish energy, as needed, to maintain operator proficiency and sustained readiness in a contested domain with flexibility to meet the increased challenges of conflict. This capability provides USSPACECOM the requisite supply chain to de-constrain operations currently limited by a fixed fuel budget, enabling movement and maneuver Dynamic Space Operations for critical National Security Space assets. Advancing an on-orbit refueling architecture enables a prepared architecture for subsequent OOSML lines of effort including mobility, relocation, repair and disposal. Additionally, as refueling requires the application of Rendezvous, Proximity Operations and Docking (RPOD) technology, the techniques, tactics and procedures (TTPs) attained through refueling simplify and accelerate subsequent capabilities.

In tandem with efforts to qualify and onboard refueling onto a "services contract" for ongoing propellant replenishment missions, OOSML will maintain connectivity to the burgeoning commercial market to capitalize on industry advancement to qualify and onboard additional on-orbit capabilities as they mature. As an "anchor tenant" this may include providing last-mile development funding for government purpose modifications, demonstrations, landscape assessments and architecture development. Due to client variations in mission, orbit, configuration and security OOSML services will not be a "one size fits all" approach and will require an enduring programmatic and systems engineering investment to meet customer requirements.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> On-Orbit Servicing, Mobility & Logistics (OOSML)	-	0.000	16.000
<b>Description:</b> On-Orbit Servicing, Mobility & Logistics (OOSML) The capability to refuel assets on-orbit is critical to perform sustained maneuver for dynamic space operations (DSO). The first step to providing this service at scale is to demonstrate the capability in an on-orbit test event. This includes proving the viability of autonomous Rendezvous and Proximity Operations (RPO), ability of commercial vendors to provide refueling as a service and prove security of dynamic operations. As refueling capacity is proven, the next step is to quantify the amount, type, and timing of fuel required to be accessible by on-orbit assets. This necessitates an iterative SML architecture and commercial landscape assessment. Further, development of a process to onboard and qualify providers for on-orbit services requires establishment of program office cadre.			
<b>FY 2024 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Air Force		<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 640016 / <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>N/A</p> <p><b>FY 2025 Plans:</b> Investments leverage demonstration and operationalization of near-term commercial services, which enhance the National Security Space mission area. Funding exploits commercial On-Orbit Servicing, Logistics and Mobility systems already operational by qualifying providers for operations with National Security Space assets, including any required programmatic support. Additionally, funding provides for ongoing assessment(s) of the commercial landscape as it relates to OOSML capabilities and the optimal application of those capabilities in achieving National Security Objectives. Examples of OOSML capabilities include, but are not limited to, on-orbit refueling, mobility, relocation, repair, resupply and development of enabling technologies. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A (New PE/BPAC)</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		-	0.000	16.000
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3620F / 4				PE 1203955SF / Space Access, Mobility & Logistics (SAML)				640016 / Space Access, Mobility & Logistics (SAML) Eff							
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
On Orbit Servicing	Various	Not specified. : TBD	-	-		-		14.752	Feb 2025	-		14.752	Continuing	Continuing	-
SBIR/STTR	Various	Not specified. : TBD	-	-		-		0.720	Mar 2025	-		0.720	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		15.472		-		15.472	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Advisory & Assistance Services (A&AS)	Various	Not specified. : TBD	-	-		-		0.208		-		0.208	Continuing	Continuing	-
Other Support	Various	Not specified. : TBD	-	-		-		0.320		-		0.320	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		0.528		-		0.528	Continuing	Continuing	N/A
Project Cost Totals			Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract				
<b>Project Cost Totals</b>			-	-	-	16.000	-	16.000	Continuing	Continuing	N/A				
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Air Force</b>			<b>Date: March 2024</b>					
<b>Appropriation/Budget Activity</b> 3620F / 4			<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>			<b>Project (Number/Name)</b> 640016 / <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>		

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b>On Orbit Servicing (OOSML)</b>																												
OOSML Contract Award																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 640016 / <i>Space Access, Mobility &amp; Logistics (SAML) Eff</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>On Orbit Servicing (OOSML)</i></b>				
OOSML Contract Award	2	2025	4	2025

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Air Force **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 646601 / <i>Rocket Cargo</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
646601: <i>Rocket Cargo</i>	-	0.000	0.000	4.000	0.000	4.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**  
This program, BA 4, PE 1203955SF, project , Point to Point Delivery (P2PD), is a new start.

BPAC 646601's name has been changed to Point to Point Delivery (P2PD). Prior years' funding for P2PD's air drop mission development (study only) was executed by AFRL adjacent to the Rocket Cargo Vanguard program within PE 0603032F / Future AF Integrated Technology Demos (e.g., 26.6 in FY2022, 28.9 in FY2023)

**A. Mission Description and Budget Item Justification**

Point-to-Point Delivery (P2PD) project builds upon prior S&T work within AFRL's Rocket Cargo Vanguard program, to develop and integrate P2PD prototype systems to meet unique military use cases. The project seeks to influence and integrate relevant component technologies and systems from S&T to high-TRL prototypes that demonstrate military-unique applications and early operational capability. The project will also study and deliver initial concepts of operation and tactics development recommendations for future operational applications. This project matures game-changing technology to close space mobility and logistics capability gaps and promotes a strong resilient national space industrial base.

The near-term focus of the P2PD program is to establish the foundational capability areas through operational integration and fielding of Point-to-Point Delivery (P2PD) services, specifically the development and integration of prototype air drop delivery systems. The P2PD project will integrate technology developed within the Rocket Cargo Vanguard program, as well as identify, evaluate, and certify additional Point to Point Delivery service providers.

The SML program provides a cost-effective investment method to cultivate relevant commercial space systems that have achieved high Technical Readiness Level (TRL) and can be leveraged to meet the needs of DoD components. Activities include system engineering technology maturation, tactics development required for operational integration, prototyping and test and evaluation required for technology transition to enable effective operational employment.

The SML program will mature, integrate, and transition space system demonstrations and prototypes in order to:

- Rapidly address identified capability gaps with emergent technologies
- Focus and integrate Science & Technology (S&T) innovations into operational capabilities and transition those capabilities to space acquisition programs of record
- Accelerate technical maturation of emerging technologies to close high-priority capability gaps to secure US overmatch against pacing threats
- Provide targeted investment in the space industrial base to support U.S. national security in a great power competition

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

	FY 2023	FY 2024	FY 2025
<b>Title:</b> Point to Point Delivery (P2PD)	-	0.000	4.000
<b>Description:</b> Funds invest in Point-to-Point Delivery (P2PD) services. is focused on utilizing vehicles that traverse from or through space to transport DoD materiel anywhere around the world within tactically responsive timelines. The near-term focus of the program is to establish the foundational capabilities through the transition of AFRL's Rocket Cargo Vanguard technology into			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Air Force		<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 646601 / <i>Rocket Cargo</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>operations. The long-term focus includes, but is not limited to, supporting the USTRANSCOM resupply mission, with potential applications including the delivery of equipment needed to sustain stand-in mission operations and enable timely disaster relief payloads in support of consequence management CONPLAN execution.</p> <p><b>FY 2024 Plans:</b> N/A</p> <p><b>FY 2025 Plans:</b> FY2025 funding will support the detailed engineering design necessary for a P2PD service provider to perform airdrop payload delivery. This work will build on AFRL's previous analysis of the angle-of-attack, door locations, ejection speeds, container sizes, reaction forces and expected actuation authority required to counter those forces, and the aerodynamics of the ejected payload in flight. AFRL has also completed the first phase of wind tunnel testing, analysis, and operational planning. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> N/A (New PE/BPAC)</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		-	0.000	4.000
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 646601 / <i>Rocket Cargo</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b><i>Point to Point Delivery (P2PD)</i></b>	
P2PD Contract Award	██████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3620F / 4	<b>R-1 Program Element (Number/Name)</b> PE 1203955SF / <i>Space Access, Mobility &amp; Logistics (SAML)</i>	<b>Project (Number/Name)</b> 646601 / <i>Rocket Cargo</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Point to Point Delivery (P2PD)</i></b>				
P2PD Contract Award	2	2025	4	2025