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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</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	409.503	60.501	97.231	47.132	0.000	47.132	49.156	47.709	49.561	50.539	Continuing	Continuing
675346: <i>F-35</i>	17.234	24.091	76.083	25.521	0.000	25.521	27.233	25.523	26.573	27.096	0.000	249.354
675349: <i>HPSI</i>	36.779	15.517	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.296
676011: <i>JSF DUAL CAPABLE AIRCRAFT</i>	355.490	20.893	21.148	21.611	0.000	21.611	21.923	22.186	22.988	23.443	Continuing	Continuing

Program MDAP/MAIS Code: 198

Note

In FY2025, PE 0207142F, F-35 Squadrons, Project 675346, Joint Simulation Environment/Virtual Test and Training Center (JSE/VTTC) efforts were transferred to PE 0207606F, JSE, Project 642407, Joint Simulation Environment (JSE), in order to consolidate all JSE funding under one PE (PE 0207606F).

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Air Force (USAF), United States Navy, United States Marine Corps and International Partners countries. There are three variants: the F-35A Conventional Takeoff and Landing (CTOL) variant; the F-35B Short Take Off and Vertical Landing (STOVL) variant; and the F-35C Carrier Variant (CV). Maximum commonality among the variants, consistent with National Disclosure Policy, will minimize total air system life cycle costs.

PE 0207142F funding supports USAF-unique on-going User Information Data Exchange Service (UIDES), SEEK EAGLE, Quick Reaction Instrumentation Package (QRIP), Joint Simulation Environment/Virtual Test and Training Center (JSE/VTTC), Hybrid Product Support Integrator (HPSI), and Dual Capable Aircraft (DCA) requirements. These continuing efforts are not new starts.

The F-35A UIDES effort develops a system that supports Information Exchange Requirement (IER) data transfer. UIDES allows F-35 operations, maintenance, training, and financial data to be integrated within existing Air Force enterprise systems. The Autonomic Logistics Information System (ALIS) UIDES will transition to an Operational Data Integrated Network (ODIN) effort.

The Air Force SEEK EAGLE Office (AFSEO) delivers warfighting capability through aircraft/store compatibility testing and evaluation while providing accurate combat weapon delivery and mission planning software. Beginning in FY2020, the USAF supported Flight Test Instrumentation (FTI) wiring and weapons integration tasks related to SEEK EAGLE requests. These tasks include, but are not limited to, envelope expansion, mixed loads testing, adding additional stores, and F-35A specific risk reduction efforts and studies.

The QRIP system is a government off-the-shelf solution from the 59th Test and Evaluation Squadron (59 TES) for F-35A high-capacity data recording needs. Designed for operational test and evaluation, the system can serve multiple emerging needs for data collection. By capturing crowd sourced flight data (CSFD) from operational

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<p>aircraft, QRIP reduces the need for deliberate regression flight testing and allows the test enterprise to focus on Block 4 and future capability development. In FY2025, the 59 TES will produce/install 25 QRIP data recording devices on F-35A aircraft and continue with approximately 25 QRIP devices annually thereafter. Also in FY2025, the Knowledge Management (KM) system for data processing and storage will be deployed at Eielson AFB and RAF Lakenheath. A team of sixteen contractors at each base are required to sustain QRIP associated hardware and software. Cost share funding for this effort is in PE0604840F while the F-35A USAF-unique costs are located in this PE.</p> <p>The F-35 HPSI's primary role is to integrate support across the supply chain, maintenance, sustainment engineering, logistics information technology and training disciplines. It will deliver enduring, global support for fielded F-35s while preparing for future force expansion. USAF funding supports additional Program Management Activities (PMA) to transition to a final HPSI, which will support sustainment analysis with product support managers, focused on long-term strategic planning, and transition to a final integrated support plan. Funding eliminated in FY2024 and beyond due to the completion of transitioning personnel to the HPSI organization at Wright-Patterson AFB, OH.</p> <p>The F-35 JSF Operational Requirements Document (ORD) calls for the F-35A to have the capabilities and provisions for DCA operations in the first post-System Development and Demonstration (SDD) block upgrade. DCA is a NATO and US priority which is a critical capability in our collective defense and credible deterrence. The USAF F-35A achieved operational certification on October 12, 2023, earlier than the need date of January 2024. DCA refers to the capability to carry and deliver conventional and non-conventional weapons. DCA operations for the F-35A is internal carriage of up to two B61-12s. Due to extensive certification requirements, the DCA capability planning and design, testing and certification will continue throughout Block 4. Funding in this PE will resource the following F-35A DCA activities: development, analysis, test, integration, certification and risk-reduction activities necessary to field and maintain F-35A DCA capabilities throughout post-SDD block upgrades; assessment of DCA weapon integration and certification impacts on the F-35 aircraft; identification and mitigation of potential technical and cost risks; definition of integration and certification trade-space to field the DCA capability with the B61-12 weapon; follow-on risk reduction efforts to ensure future integration alignment with the earliest feasible post-SDD block upgrade; and full integration efforts pending Service decisions.</p> <p>This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 \$3.4M was expended for civilian pay expenses in this program element, and in FY2024 \$3.4M is forecasted for civilian pay expenses in this program element.</p> <p>This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>
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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	65.730	97.231	78.548	0.000	78.548
Current President's Budget	60.501	97.231	47.132	0.000	47.132
Total Adjustments	-5.229	0.000	-31.416	0.000	-31.416
• 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	-5.000	0.000			
• SBIR/STTR Transfer	-0.229	0.000			
• Other Adjustments	0.000	0.000	-31.416	0.000	-31.416

Change Summary Explanation

FY2023 funding reduced by \$5M due to reprogramming to PE 0207179F, Autonomous Collaborative Platforms, Project 647123: Autonomous Collaborative Technologies.
 FY2025 funding reduced due to transfer of JSE/VTTC funding to PE 0207606F, Joint Simulation Environment, Project 642407: Joint Simulation Environment

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons				Project (Number/Name) 675346 / F-35			
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
675346: F-35	17.234	24.091	76.083	25.521	0.000	25.521	27.233	25.523	26.573	27.096	0.000	249.354
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2025, PE 0207142F, F-35 Squadrons, Project 675346, Joint Simulation Environment/Virtual Test and Training Center (JSE/VTTC) efforts were transferred to PE 0207606F, JSE, Project 642407, Joint Simulation Environment (JSE), in order to consolidate all JSE funding under one PE (PE 0207606F).

A. Mission Description and Budget Item Justification

The F-35A UIDES effort develops a system that supports IER data transfer. UIDES allows F-35A operations, maintenance, training and financial data to be integrated within existing Air Force enterprise systems.

The AFSEO delivers warfighting capability through aircraft/store compatibility testing and evaluation and provides accurate combat weapon delivery and mission planning software. Beginning in FY2020, the USAF supported FTI wiring and weapons integration tasks related to SEEK EAGLE requests. These tasks include, but are not limited to, envelope expansion, mixed loads testing, adding additional stores, and F-35A specific risk reduction efforts and studies.

The QRIP / CSFD system is a government-owned, off-the-shelf solution from the 59 TES for F-35 high-capacity data recording needs. Designed for operational test and evaluation, the system serves multiple emerging needs for data collection. By capturing CSFD from operational aircraft, QRIP reduces the need for deliberate regression flight testing and allows the test enterprise to focus on Block 4 and future capability development. In FY2025, the 59 TES will produce and install 25 QRIP data recording devices on F-35A aircraft. Also in FY2025, data ingest capable systems will be utilized to support the data processing, storage, and transmission of all F-35 generated CSFD sources. Tyndall AFB (FL) is scheduled for modifications and KM in FY2025. These bases are prioritized in accordance with the CSFD Program Roadmap. A team of sixteen contractors at each base are required to sustain CSFD associated hardware and software at Full Operating Capability. Meanwhile, the 59 TES will continue studying means to increase the operational viability of CSFD, including the use of data science teams, artificial intelligence, and machine learning algorithms.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 \$3.4M was expended for civilian pay expenses in this program element, and in FY2024 \$3.4M is forecasted for civilian pay expenses in this program element.

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

	FY 2023	FY 2024	FY 2025
Title: Autonomic Logistics Information System (ALIS) User Information Data Exchange Service (UIDES)	0.000	2.821	0.000
Description: Beginning in FY2020, the USAF unique ALIS UIDES requirement was broken out separately from the remaining systems engineering. USAF F-35 UIDES provides for Air Force development of a F-35 ALIS - UIDES that supports IER data			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 675346 / F-35

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>transfer capability from the F-35 ALIS into existing Air Force enterprise systems. Activities also include studies and analysis to support both current program/project planning and execution and future program/project planning.</p> <p>FY 2024 Plans: Resume ALIS UIDES efforts to prepare for the ODIN baseline transition. ALIS UIDES efforts were postponed in FY23 until the new ODIN baseline was ready.</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased due to completion of effort.</p>			
<p>Title: Air Force SEEK EAGLE Office and Low Observable Sustainability Over Time</p> <p>Description: Integrated Test activities in support of Block 4, to include Lockheed Martin and Pratt & Whitney support at all test sites. Non-recurring engineering required to plan for the service life extension of existing Developmental Test (DT) aircraft and modification necessary to bring DT aircraft fleet to a more production representative and sustainable configuration, and to develop flight test instrumentation and release test software to meet Block 4 requirements. Additional upgrades required to support development and evaluation of improvements driven by changes in the threat environment and as identified in the Electronic Warfare Initial Capability Document (ICD), the Fifth Generation Fighter Modernization ICD, and the Block 4 Capability Development Document (CDD).</p> <p>Beginning in FY2020, the USAF has supported FTI wiring and weapons integration tasks related to AFSEO requests. These tasks include, but are not limited to, envelope expansion, mixed loads testing, adding additional stores and F-35A specific risk reduction efforts and studies.</p> <p>As an alternative to flight test, AFSEO will procure 1/6th scale models of the F-35A to be tested in wind tunnels at Arnold Engineering Development Complex (AEDC) to fulfill F-35A weapons integration objectives. Wind tunnel testing would increase AFSEO throughput three hundred percent.</p> <p>To ensure the F-35A fleet's Low Observable Sustainability Over Time (LOSOT), 12 F-35A aircraft must undergo radar cross section (RCS) testing annually. The only facility at NAS Patuxent River does not have the capacity to support LOSOT test requirements. The National Radar Test Facility (NRTF) at White Sands Missile Range (WMSR) has the capability, but must procure and install Multifunction Advanced Data Link (MADL) antennae to adapt the range for F-35A testing. These MADL antennae capture F-35A time, space, and position information to direct their radar.</p>	4.591	5.079	7.180

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024		
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: USAF only funding will continue supporting AFSEO requests by providing FTI wiring and supporting weapons integration tasks initiated in FY2021, in addition to emergent AFSEO tasks. Procure 1/6th scale models of F-35A and conduct wind tunnel testing for weapons integration. Procure, install, and sustain MADL antennae at NRTF in support of LOSOT testing.</p> <p>FY 2025 Plans: USAF only funding will continue supporting AFSEO requests by providing FTI wiring and supporting weapons integration tasks initiated in FY2021, in addition to emergent AFSEO tasks. Procure 1/6th scale models of F-35A and conduct wind tunnel testing for weapons integration. Procure, install, and sustain MADL antennae at NRTF in support of LOSOT testing.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase from FY2024 to FY2025 is due to cost growth and increased MADL antennae acquisition efforts.</p>				
<p>Title: Quick Reaction Instrumentation Package (QRIP) / Crowd Sourced Flight Data (CSFD)</p> <p>Description: The QRIP / Crowd Sourced Flight Data (CSFD) system is a government-owned, off-the-shelf solution from the 59 TES for F-35 high-capacity data recording needs. Designed for operational test and evaluation, the system serves multiple emerging needs for data collection. By capturing CSFD from operational aircraft, QRIP reduces the need for deliberate regression flight testing and allows the test enterprise to focus on Block 4 and future capability development.</p> <p>FY 2024 Plans: In FY2024, the 59 TES will produce and install 25 QRIP data recording devices on F-35A aircraft. Also in FY2024, the KM system for data processing and storage will be procured and deployed at RAF Lakenheath (UK) and continued support at Nellis AFB (NV), Hill AFB (UT), MCAS Yuma (AZ), Edwards AFB (CA), and Eielson (AK). FY2024 will continue to increase the required contractors toward the FOC objective of 16 as more F-35As become modified and KM nodes stand-up.</p> <p>FY 2025 Plans: In FY2025, the 59 TES will produce and install 25 QRIP data recording devices on F-35A aircraft and continue producing/ installing approximately 25 QRIP devices annually. Also, in FY2025, data-ingest capable processing and storage systems will be developed, procured and deployed to support all F-35 CSFD requirements. These data-ingest capable systems will be utilized to support the data processing, storage, and transmission of all F-35 generated Crowd Source Flight Data (CSFD) sources including QRIP and Tactical Data Recorder (TDR). Additionally, FY2025 will require continued CSFD support at Nellis AFB (NV), Hill AFB (UT), MCAS Yuma (AZ), Edwards AFB (CA), and Eielson (AK).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY2024 to FY2025 is in the development of capability upgrades, while installations of the current QRIP configuration continue as planned.</p>		19.500	25.927	18.341
<p>Title: Joint Simulator Environment (JSE) / Virtual Test and Training Center (VTTC)</p>		0.000	42.256	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>	Project (Number/Name) 675346 / <i>F-35</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: The VTTC campus connects 5th Generation / 4th Generation fighter, C2ISR, and bomber simulators in a TS/SCI/ SAR virtual battlespace that provides opportunities for high end advanced tactics and training. In FY2024, this will fund F-35 FIAB, a digital version of the F-35 aircraft and sensors for JSE integration at the VTTC. This capitalizes on investments made by Air Force and Navy in high fidelity sims for 5th Generation fighters and leverages the architecture and development made for test purposes setting the stage to connect Air Force and Navy JSE based sims for joint training.</p> <p>FY 2024 Plans: Procured, integrated, and sustained 8x F-35 Fighter In-A-Box (FIABs) and required human system interface components in support of JSE training at the VTTC.</p> <p>FY 2025 Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased due to transfer of funding to PE 0207606F, JSE, Project 642407, Joint Simulation Environment (JSE).</p>			
Accomplishments/Planned Programs Subtotals	24.091	76.083	25.521

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDTE 07 PE 0604840F: <i>F-35A Continuous Capability Development and Delivery</i>	994.924	1,275.268	1,124.207	0.000	1,124.207	1,192.420	1,160.610	975.101	989.293	Continuing	Continuing
• RDTE 07 PE 0207142F 6011: <i>Dual Capable Aircraft (DCA), BPAC 676011</i>	20.893	21.148	21.611	0.000	21.611	21.923	22.186	22.988	23.443	Continuing	Continuing
• RDTE 07 PE 0604840N 2936: <i>F-35C Continuous Capability Development and Delivery (CV)</i>	478.430	543.834	466.186	0.000	466.186	493.186	466.798	428.356	417.407	Continuing	Continuing
• RDTE 07 PE 0604840M 3410: <i>F-35B Continuous Capability Development and Delivery (STOVL)</i>	514.462	544.625	480.759	0.000	480.759	517.621	460.787	449.975	439.567	Continuing	Continuing
• RDTE 07 International: <i>International Continuous Capability Development and Delivery</i>	346.820	306.563	265.912	0.000	265.912	215.209	193.862	-	-	0.000	1,328.366

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 675346 / F-35

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

The C2D2 acquisition strategy employs both Cost and Fixed Price Incentive contracts for the Block 4 engineering and development efforts. A new modernization contract structure will be established for all post SDD Block 4 efforts. In addition, a separate Basic Ordering Agreement or Indefinite Quantity/Indefinite Delivery contract is planned to provide a long term approach to upgrading and maintaining laboratories and test aircraft and supporting technology maturation for future C2D2 capabilities.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
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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

<i>F-35 SEEK EAGLE and LOSOT</i>	
Ongoing support activities	
<i>F-35 UIDES</i>	
Ongoing support activities	
<i>F-35A QRIP / CSFD</i>	
Ongoing support activities	
<i>JSE/VTTC F35 FIAB</i>	
Ongoing support activities	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>	Project (Number/Name) 675346 / <i>F-35</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>F-35 SEEK EAGLE and LOSOT</i>				
Ongoing support activities	1	2023	4	2029
<i>F-35 UIDES</i>				
Ongoing support activities	1	2024	4	2024
<i>F-35A QRIP / CSFD</i>				
Ongoing support activities	2	2023	4	2029
<i>JSE/VTTC F35 FIAB</i>				
Ongoing support activities	2	2024	4	2024

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

Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons				Project (Number/Name) 675349 / HPSI			
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
675349: HPSI	36.779	15.517	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.296
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The F-35 HPSI is the sustainment execution arm of the F-35 Program Office. The HPSI's primary role is to integrate sustainment support across the supply chain, maintenance, sustaining engineering, logistics information technology and training disciplines. HPSI personnel are from the US Services, F-35 Partners, Lockheed Martin, Pratt & Whitney, Rolls Royce, BAE Systems, and Northrop Grumman. USAF funding supports additional PMA to transition to a final HPSI, which will support sustainment analysis with product support managers, focused on long-term strategic planning, and transition to a final integrated support plan.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 \$3.4M was expended for civilian pay expenses in this program element, and in FY2024 \$3.4M is forecasted for civilian pay expenses in this program element.

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

	FY 2023	FY 2024	FY 2025
Title: Management Services	15.517	0.000	0.000
Description: This funding supports the transition of the F-35 HPSI from multiple locations to Wright-Patterson Air Force Base (AFB), Ohio (OH). The funding supports HPSI AFLCMC civilian pay, contractor support, and travel.			
FY 2024 Plans: Funding not required in FY2024 and beyond due to the completion of transitioning personnel to the HPSI organization at Wright-Patterson AFB, OH.			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	15.517	0.000	0.000

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

N/A

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>	Project (Number/Name) 675349 / <i>HPSI</i>

D. Acquisition Strategy

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 675349 / HPSI
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Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
AFLCMC Civilian Pay	Allot	AFLCMC : TBD	23.438	8.339		-		-		-		-	0.000	31.777	-
Other Core Contractor Support	Various	Various : TBD	11.852	6.465		-		-		-		-	0.000	18.317	-
Travel	Various	Various : TBD	1.489	0.713		-		-		-		-	0.000	2.202	-
Subtotal			36.779	15.517		-		-		-		-	0.000	52.296	N/A
Project Cost Totals			36.779	15.517		-		-		-		-	0.000	52.296	N/A

Remarks
 Prior years reflects funding in FY20 through FY22. HPSI funding prior to FY20 was programmed under PE 0207142F, Project 675346.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 675349 / HPSI
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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

Hybrid Product Support Integrator	
Management Support Activities	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>	Project (Number/Name) 675349 / <i>HPSI</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Hybrid Product Support Integrator</i>				
Management Support Activities	1	2023	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons				Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT			
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
676011: JSF DUAL CAPABLE AIRCRAFT	355.490	20.893	21.148	21.611	0.000	21.611	21.923	22.186	22.988	23.443	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Operational Requirements Document (ORD) calls for the F-35A variant to have the capabilities and provisions for Dual Capable Aircraft (DCA) operations in the first post System Development and Demonstration (SDD) block upgrade. DCA refers to the capability to carry and deliver conventional and non-conventional weapons. DCA operation for the F-35A is internal carriage of up to two B61-12 weapons.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 \$3.4M was expended for civilian pay expenses in this program element, and in FY2024 \$3.4M is forecasted for civilian pay expenses in this program element.

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

	FY 2023	FY 2024	FY 2025
Title: Dual Capable Aircraft (DCA) (F-35 JSF)	20.893	21.148	21.611
<p>Description: This effort provides for the assessment of DCA weapon integration and certification impacts on the F-35A aircraft. It identifies and mitigates potential technical and cost risks, as well as defines the integration and certification trade-space to field the DCA capability with the B61-12 weapon. This effort also supports follow-on risk reduction efforts that will ensure future integration alignment with the earliest feasible post-SDD block upgrade, and is expected to include full integration efforts pending Service decisions.</p> <p>Integrated Test activities in support of Block 4, to include Lockheed Martin and Pratt & Whitney support at all test sites. Non-Recurring engineering required to plan for the service life extension of existing DT aircraft and modification necessary to bring DT aircraft fleet to a more production representative and sustainable configuration.</p> <p>FY 2024 Plans: Continued execution of the Phase 2 C2D2 contract: DCA Software Regression Testing, Flyable Test Assets Testing, DCA Propulsion Mission Support for Flight Test Operations, Mission System Flight Testing, and Aircraft Monitor and Control (AMAC) Testing. Updated the Nuclear Safety Analysis Report (NSAR), Technical Nuclear Safety Analysis (TNSA), Mechanical Interface Control Drawing (MICD), and Electrical Interface Control Drawing (EICD) documentation for the initial TR-3 nuclear certification. Delta Nuclear Certification activities continued in order to certify TR-2 F-35As (30P08 and 30P09 software), that contain additional DCA hardware and software, as well as Lot 15 F-35As with TR-3. Continued initial TR-3 nuclear certification hardware and</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
software development and testing by the prime contractor, Lockheed Martin. In addition, received Military Flight Release (MFR) for TR-3. Initiated AMAC on TR-3 production aircraft as well as AMAC graduation event on production aircraft. Initiated interim operational plan data documents, and completed the final aircraft NSAR. Delta Nuclear Certification activities continued in order to certify Lot 16 F-35As, NSAR, TNSA, MICD, and EICD documentation for nuclear certification.			
FY 2025 Plans: Continue execution of the Phase 2 C2D2 contract: DCA Software Regression Testing, Flyable Test Assets Testing, DCA Propulsion Mission Support for Flight Test Operations, Mission System Flight Testing, and AMAC Testing. Continue updating the NSAR, TNSA, MICD, and EICD documentation for the initial TR-3 nuclear certification. Delta Nuclear Certification activities continue in order to certify TR-2 F-35As (30P08 and 30P09 software), that contain additional DCA hardware and software, as well as Lot 15 F-35As with TR-3. Continue initial TR-3 nuclear certification hardware and software development and testing by the prime contractor, Lockheed Martin. Continue AMAC on TR-3 production aircraft as well as AMAC graduation event on production aircraft. Delta Nuclear Certification activities continue in order to certify Lot 16 F-35As, NSAR, TNSA, MICD, and EICD documentation for nuclear certification.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	20.893	21.148	21.611

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• RDTE 07 PE 0207142F 5346: JSF Follow on Modernization, BPAC 675346	24.091	76.083	25.521	-	25.521	27.233	25.523	26.573	27.096	Continuing	Continuing
• RDTE 07 PE 0604840F: F-35A Continuous Capability Development and Delivery	994.924	1,275.268	1,124.207	-	1,124.207	1,192.420	1,160.610	975.101	989.293	Continuing	Continuing
• RDTE 07 PE 0604840N 2936: F-35C Continuous Capability Development and Delivery (CV)	478.430	543.834	466.186	-	466.186	493.186	466.798	428.356	417.407	Continuing	Continuing
• RDTE 07 PE 0604840M 3410: F-35B Continuous Capability Development and Delivery (STOVL)	514.462	544.625	480.759	-	480.759	517.621	460.787	449.975	439.567	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE 07 International: <i>International Continuous Capability Development and Delivery</i>	346.820	306.563	265.912	-	265.912	215.209	193.862	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

The DCA effort will leverage contracting vehicles for the overall Block 4 F-35 C2D2 effort. The C2D2 acquisition strategy employs both Cost and Fixed Price Incentive contracts for the Block 4 engineering and development efforts. A new modernization contract structure will be established for all post SDD Block 4 efforts. In addition, a separate Basic Ordering Agreement or Indefinite Quantity/Indefinite Delivery contract is planned to provide a long term approach to upgrading and maintaining laboratories and test aircraft and supporting technology maturation for future C2D2 capabilities.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Block 4 Phase 2.3 - DCA to DT Complete	SS/CPFF	Lockheed Martin : Ft. Worth, TX	90.717	1.500	Feb 2023	2.000	Mar 2024	2.419	Mar 2025	-		2.419	Continuing	Continuing	-
DCA Prime PW Propulsion	SS/CPFF	Pratt Whitney - East : Hartford, CT	2.000	0.300	Feb 2023	0.310	Mar 2024	0.310	Mar 2025	-		0.310	0.000	2.920	-
DCA TE Prime LM DT AC Viability	C/CPFF	Lockheed Martin : Ft. Worth, TX	7.020	0.900	Mar 2023	1.000	Dec 2023	1.000	Dec 2024	-		1.000	Continuing	Continuing	-
DCA TE Prime LM Developmental Foundation Contract	C/CPFF	Lockheed Martin : Ft. Worth, TX	19.024	2.000	Mar 2023	1.000	Dec 2023	1.000	Dec 2024	-		1.000	Continuing	Continuing	-
Delta Certification	SS/CPFF	Lockheed Martin : Ft. Worth, TX	36.889	2.000	Feb 2023	2.000	Feb 2024	2.000	Feb 2025	-		2.000	Continuing	Continuing	-
Block Four Contract (BFC)	SS/CPAF	Not specified : TBD	0.000	0.000	Oct 2022	1.500	Oct 2023	1.500	Oct 2024	-		1.500	0.000	3.000	-
Block 4 Phase 1 DCA Requirements Decomposition	SS/CPFF	Lockheed Martin : Ft. Worth, TX	21.572	-		-		-		-		-	0.000	21.572	-
Block 4 Phase 2.1 DCA to PDR	SS/CPFF	Lockheed Martin : Ft. Worth, TX	28.070	-		-		-		-		-	0.000	28.070	-
Prior Year - no longer funded in FYDP	Various	Not specified: TBD : TBD	1.739	-		-		-		-		-	0.000	1.739	-
Prior Year - Block 4 Realignment	Various	Not specified: TBD : TBD	14.676	-		-		-		-		-	0.000	14.676	-
Subtotal			221.707	6.700		7.810		8.229		-		8.229	Continuing	Continuing	N/A

Remarks
SEI&T: Accounts for DCA share of Systems Engineering Integration and Test (SEI&T) contract.

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
B61-12/F-35 Certification	Various	Various : TBD	83.327	0.500	Feb 2023	-		-		-		-	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT
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Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
B61-12 AUR/Tail-kit Program Office	MIPR	AUR/TKA SPO : Kirtland/Eglin AFB, NM	14.080	1.800	Dec 2022	2.500	Dec 2023	2.500	Dec 2024	-		2.500	Continuing	Continuing	-
AFNWC/AFSEC Support	MIPR	Various : TBD	19.030	6.000	Nov 2022	8.974	Nov 2023	9.018	Nov 2024	-		9.018	Continuing	Continuing	-
Prior Year - no longer funded in FYDP	Various	Various : TBD	0.791	-		-		-		-		-	0.000	0.791	-
Subtotal			117.228	8.300		11.474		11.518		-		11.518	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation Edwards & OGC	MIPR	Testing : Edwards, CA	4.400	1.193	Mar 2023	0.250	Feb 2024	0.250	Feb 2025	-		0.250	Continuing	Continuing	-
Air Force SEEK EAGLE Office (Combat Weapons Delivery Software)	MIPR	Testing : Eglin, FL	1.000	0.000	Oct 2022	0.100	Feb 2024	0.100	Feb 2025	-		0.100	Continuing	Continuing	-
Prior Year - no longer funded in FYDP	Various	TBD : TBD	0.824	-		-		-		-		-	0.000	0.824	-
Subtotal			6.224	1.193		0.350		0.350		-		0.350	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	C/CPAF	Not specified. : TBD	10.131	4.500	Dec 2022	1.000	Mar 2024	1.000	Mar 2025	-		1.000	Continuing	Continuing	-
AFLCMC Civilian Pay	Allot	Not specified. : TBD	0.000	0.000	Oct 2022	0.314	Oct 2023	0.314	Oct 2024	-		0.314	Continuing	Continuing	-
Travel	Various	Not specified. : TBD	0.200	0.200	Feb 2023	0.200	Oct 2023	0.200	Oct 2024	-		0.200	Continuing	Continuing	-
Subtotal			10.331	4.700		1.514		1.514		-		1.514	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force								Date: March 2024					
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons				Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT					
	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	355.490	20.893		21.148		21.611		-		21.611	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / F-35 Squadrons	Project (Number/Name) 676011 / JSF DUAL CAPABLE AIRCRAFT

	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

676011: JSF Dual Capable Aircraft	
Nuclear Certification - NNSA & B61-12 AUR/TKA SPO	
Phase 1 (Nuclear Certification Tasks) Requirements Decomposition	
Phase 2.1 (Nuclear Certification Tasks) DCA to Preliminary Design Review (PDR)	
Phase 2.3 (Nuclear Certification Tasks) DCA to DT Complete	
Delta Certification of Hardware/Software Upgrades/DT Prime Contractor Support/SEI&T	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207142F / <i>F-35 Squadrons</i>	Project (Number/Name) 676011 / <i>JSF DUAL CAPABLE AIRCRAFT</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
676011: JSF Dual Capable Aircraft				
Nuclear Certification - NNSA & B61-12 AUR/TKA SPO	1	2023	4	2029
Phase 1 (Nuclear Certification Tasks) Requirements Decomposition	1	2023	4	2023
Phase 2.1 (Nuclear Certification Tasks) DCA to Preliminary Design Review (PDR)	1	2023	4	2023
Phase 2.3 (Nuclear Certification Tasks) DCA to DT Complete	1	2023	4	2024
Delta Certification of Hardware/Software Upgrades/DT Prime Contractor Support/ SEI&T	1	2023	4	2029

Note

Schedule details reflect fiscal years