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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0604840F I F-35 C2D2							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	694.455	0.000	694.455	786.513	550.100	451.737	522.023	Continuing	Continuing
675346: F-35	-	0.000	0.000	694.455	0.000	694.455	786.513	550.100	451.737	522.023	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Total cost, including International partner contributions, USN, USMC, and USAF funding: FY2020: \$1,782.964M.

R-2A table shown above reflects service funding only.

R-2A (section B)/R-3 displays combined program for JSF Continuous Capability Development and Delivery (C2D2).

F-35 C2D2 Includes:

FY13-19 PE 0207142F BPAC 675346

FY20: USAF PE 0604840F BPAC 675346

FY13: USN PE 0604800N Project Unit 2261

FY14: USN PE 0604800N Project Unit 9999

FY15-18: USN PE 0604810N Project Unit 2936

FY19: USN PE 0604840N Project Unit 2936

FY13: USMC PE 0604800M Project Unit 2262

FY14: USMC PE 0604800M Project Unit 9999

FY15-18: USMC PE 0604810M Project Unit 2935

FY19: USMC PE 0604840M Project Unit 3410

International Partner Contributions

**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, United States Navy, United States Marine Corps and International Partners countries. There are three variants: the F-35A Conventional Takeoff and Landing variant; the F-35B Short Take Off and Vertical Landing variant; and the F-35C Aircraft Carrier suitable variant. Maximum commonality among the variants, consistent with National Disclosure Policy, will minimize total air system life cycle costs. Planning and pre-development systems engineering for Block 4 continues as Initial Operational Capability (IOC) is met for each variant during System Development and Demonstration (SDD).

The JSF Continuous Capability Development & Delivery (C2D2) efforts provide incremental warfighting capability improvements to maintain joint air dominance against evolving threats. Block 4 capability requirements were initiated through ongoing Service-led operational analysis of warfighting gaps identified in the Fifth Generation

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<p>Fighter Modernization Initial Capabilities Document (ICD) and through F-35 JSF Block 4 Mission Decomposition analysis completed in FY2014. These analyses serve as the basis for the Block 4 (CDD), staffed through the Air Force Requirements Oversight Council (AFROC) and signed by the USAF Chief of Staff in January 2015. Joint Requirements Oversight Council (JROC) approved the CDD 21 March 2017. Modernization activities in FY2017 and FY2018 include systems engineering, risk reduction, and infrastructure required to deliver full air system Block 4 capabilities to support initial fleet availability of Block 4 upgrades in FY2021.</p> <p>C2D2 efforts designated as Block 4 include a robust weapons integration portfolio and provide new opportunities for International Partners to assess, integrate, and field unique capabilities based on global sovereign requirements.</p> <p>The United Kingdom, Italy, Netherlands, Turkey, Canada, Australia, Denmark and Norway are participants in F-35 modernization. The program shown here reflects United States Air Force funding. Total funding for all Service and International Partners is reported at the accomplishment/planned program level since activities support all aircraft variants. Foreign Military Sales are ongoing separately.</p> <p>This program element does include necessary civilian pay expenses required to manage, execute, and deliver F-35 weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, and 0605898F.</p> <p>PE 0604840F continues funding common requirements for the joint program (US Services and International Partners) previously programmed for in PE 0207142F for common Block 4 requirements beginning in FY20. This is not a new start.</p> <p>As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.</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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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 0604840F / F-35 C2D2						
B. Program Change Summary (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total		
Previous President's Budget		0.000	0.000	0.000	0.000	0.000		
Current President's Budget		0.000	0.000	694.455	0.000	694.455		
Total Adjustments		0.000	0.000	694.455	0.000	694.455		
• 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	694.455	0.000	694.455		
Change Summary Explanation								
FY20: USAF Common Block 4 funding moved in FY20 from PE 0207142F to PE 0604840F. This funding is a continuation of effort under 0207142F; new PE established to separate USAF unique requirements.								
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Development - Block 4 Planning and Systems Engineering				0.000	0.000	622.265	0.000	622.265
Description: Block 4 Planning and Systems Engineering preliminary design and delta System Requirements Review (SRR) for all variants of the F-35 Aircraft. Modernization effort is the Requirements Decomposition of capabilities for the entire Block 4 upgrade. This is a continuation of the previous Block 4 Requirements Decomposition effort which will include activities leading up to a successful System Functional Review (SFR) and select facility upgrades required for Block 4 research, development, test and evaluation. Included in Block 4 are upgraded capabilities and continuous improvements to maintain Air System viability against evolving threats indicated in the Electronic Warfare Initial Capabilities Document (ICD), the Fifth Generation Fighter Modernization ICD, and the Block 4 Capability Development Document (CDD), reduce life cycle cost, and improve operational suitability. Expected completion of a Block 4 Preliminary Design Review (PDR) and System Requirements Review (SRR) will address additional Block 4 capabilities requirements. Post-PDR risk reduction, preplanning for subsequent Block 4 Modernization events, and investments to deliver the full Block 4 Air System capabilities are included.								
FY 2019 Plans:								

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
see PE 27142F  <b>FY 2020 Base Plans:</b> Continued from PE 0207142F  Continue Block 4 Phase II contract development. Continue Post-PDR risk reduction activities for completion of Developmental Flight Test. Continue with Agile development of capabilities through Developmental Flight Test. Continue development and maturity of key long lead capabilities and service unique weapons.  <b>FY 2020 OCO Plans:</b> N/A  <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b> FY20 is a continuation of effort from PE 0207142F in FY19.						
<b>Title:</b> Technology Refresh 3 (TR-3)  <b>Description:</b> Technology Refresh 3 (TR-3) Design Competition, Development, Integration, and Test. This is the design phase of the TR-3 program which fully supports Block 3F functionality and allows incorporation of all Block 4 capabilities documented in the System Requirements Document (SRD). TR-3 hardware redesign is required to support 4X processing growth factor based on the current processing estimates for all 3F capabilities. Redesign of TR-3 subsystems Integrated Core Processor (ICP), Aircraft Memory System (AMS), and Panoramic Cockpit Display (PCD) configurations will contain new backplane technology, commercial operating systems, and modified middleware necessary to take the design of the TR-3 System through Critical Design Review (CDR).  <b>FY 2020 Base Plans:</b> Continued from PE 0207142F.  The TR-3 program will complete design for Critical Design Review of the Integrated Core Processor (ICP), Panoramic Cockpit Display (PCD), and Aircraft Memory System (AMS). In addition the TR-3 program will continue with the development of middleware software to ensure and validate compatibility with current F-35 sensors and weapon loads. Continued lab test and verification will ensure timely first article delivery to the production line by FY23.  <b>FY 2020 OCO Plans:</b>		-	-	195.600	0.000	195.600

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: FY20 is a continuation of effort from PE 0207142F in FY19.						
<b>Title:</b> Infrastructure and Support Costs  <b>Description:</b> Funding will support infrastructure investment planning and other test planning activities required for Block 4 development, integration, test and evaluation. Funding related to the Integrated Test Force, government, and contractor labor. Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, autonomic logistics development, joint reprogramming enterprise, modeling and simulation environment activities and training investment support. Other costs in support of ranges, chase planes and DT site operations.  <b>FY 2020 Base Plans:</b> Continued from PE 0207142F.  Continue development support for defining, managing and acquiring the F-35 capability enhancements identified in approved requirements documents. Transfer of integrated test force requirement to Block 4 as F-35 SDD draws to closure. USAF only will fund additional PMA to transition to a final hybrid product support integrator (HPSI) which will support sustainment analysis with product support managers, focused on long term strategic planning and transition to a final integrated support plan. Conduct strategic basing analysis to determine permanent location for core of HPSI.  <b>FY 2020 OCO Plans:</b> N/A  <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b> FY20 is a continuation of effort from PE 0207142F in FY19.		-	-	205.811	0.000	205.811
<b>Title:</b> Test and Evaluation  <b>Description:</b> Developmental Test activities in support of Block 4, to include Lockheed Martin and Pratt & Whitney support at both 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. Additional upgrades required to support development and evaluation of improvements driven by		-	-	601.355	0.000	601.355

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
changes in the threat environment and as identified in the Electronic Warfare ICD, the Fifth Generation Fighter Modernization ICD, and the Block 4 Capability Development Document (CDD).  <b>FY 2020 Base Plans:</b> Continued from PE 0207142F.  Funding will support flight test execution to ensure Block 4 capabilities are delivered as designed. Funding also supports investment planning and prioritization required to maintain future development capabilities. This includes continuing work on instrumenting new DT aircraft, and delivery and install of upgraded hardware as part of the DT aircraft viability effort, as well as test engine support. Additionally, this funding supports laboratory upgrades required to support development and verification of capabilities in a relevant environment.  <b>FY 2020 OCO Plans:</b> N/A  <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b> FY20 is a continuation of effort from PE 0207142F in FY19.						
<b>Title:</b> Autonomic Logistics Information System (ALIS) Development  <b>Description:</b> Autonomic Logistics Information System (ALIS) continues to deliver the core logistics infrastructure requirements for the F-35 enterprise. ALIS includes features such as aircraft scheduling, training delivery and record keeping, technical data delivery, supply chain management, maintenance management, pilot and maintenance debriefing, and mission planning. The ALIS development program is focused on two primary lines of effort: Current ALIS which includes Agile DevOps, and ALIS Next.  Current ALIS is focused on developing new software that uses the current software as a baseline. Upcoming software releases include 3.5, 3.6 and 3.7 builds. The required new capabilities have been defined by the US Services and include cybersecurity updates, decentralized maintenance, Prognostic Health Monitoring (PHM), Training Management System upgrades, Personnel Flight Equipment (PFE), Low Observable Health Assessment System (LOHAS), Corrosion Management System, squadron resource sharing, and new propulsion capabilities. All aspects of ALIS software are included in current ALIS development. The software development will have applicability to the Standard Operating Units (SOU), Central Points of Entry (CPE), and the Autonomic Logistics Operating Unit (ALOU) for both classified and unclassified hardware. Under the umbrella of current		-	-	157.933	0.000	157.933

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C. Accomplishments/Planned Programs (\$ in Millions)						FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	
ALIS, an Agile DevOps pilot is working to rapidly deliver capability updates to the fleet and change the way that current ALIS delivers software.											
ALIS Next is the re-architecture effort that began in FY19 and will complete fielding in FY23. ALIS Next will redesign ALIS software, data, and hardware architecture with a focus on cybersecurity, affordability, resiliency, and supportability.											
FY 2020 Base Plans: Continued from PE 0207142F.											
Funding will continue to support ALIS software development efforts as well as begin ALIS build 3.6. Increase the number of DevOps product teams and begin to merge with Current ALIS development efforts. Refactor ALIS software in accordance with the ALIS Next architecture developed in FY19.											
FY 2020 OCO Plans: N/A											
FY 2019 to FY 2020 Increase/Decrease Statement: Continuing effort previously resourced in PE 0207142F.											
Accomplishments/Planned Programs Subtotals						0.000	0.000	1,782.964	0.000	1,782.964	
Other Service Funding Adjustment						-	-	1,088.509	-	1,088.509	
Air Force Subtotals						0.000	0.000	694.455	0.000	694.455	
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• RDTE 07 0207142F: BPAC 675346: F-35 Squadrons	291.080	426.494	11.850	-	11.850	7.693	4.948	4.196	3.745	Continuing	Continuing
• RDTE 07 0207142F (1)...: BPAC 676011: Dual Capable Aircraft	34.145	77.434	71.339	-	71.339	106.329	45.328	11.643	11.852	Continuing	Continuing

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D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• RDTE 05 0604810N: BLI 2936: F-35C Follow on Modernization (CV)	138.308	-	-	-	-	-	-	-	-	0.000	138.308
• RDTE 07 0604840N: BLI 2936: F-35C C2D2	-	227.998	383.741	-	383.741	351.536	263.066	252.898	245.204	Continuing	Continuing
• RDTE 05 0604810M: BLI 2935: F-35B Follow on Modernization (STOVL)	139.369	-	-	-	-	-	-	-	-	0.000	139.369
• RDTE 07 0604840M: BLI 3410: F-35B C2D2	-	234.107	422.881	-	422.881	373.365	313.601	283.357	270.845	Continuing	Continuing
• RDTE International: International	157.042	209.763	281.887	-	281.887	339.139	224.501	189.728	158.811	Continuing	Continuing
Remarks											
This is a joint program with no executive service. Service Acquisition Executive (SAE) authority alternates between the Department of the Navy and the Department of the Air Force and currently resides with the Air Force. Program Element 0604800N/0604800M continues USN development efforts budgeted in 0603800N prior to FY2002. The United Kingdom, Italy, Netherlands, Turkey, Canada, Australia, Denmark, and Norway are participants in the SDD phase of JSF.											
PE 0604840F replaces PE 0207142F for common Block 4 requirements beginning in FY20.											
E. Acquisition Strategy											
The C2D2 acquisition strategy is to employ 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. The F-35 Acquisition Strategy is currently being updated to add a section regarding C2D2.											
F. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											



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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0604840F / F-35 C2D2				Project (Number/Name) 675346 / F-35					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Prime LM 18-C-1004 (Phase II)	C/CPFF	Lockheed Martin : Ft Worth, TX	-	-		-		416.615	Dec 2019	-		416.615	Continuing	Continuing	-
Prime LM 14-G-0020 (TR3)	C/CPAF	Lockheed Martin : Ft Worth, TX	-	-		-		195.600	Dec 2019	-		195.600	Continuing	Continuing	-
Prime LM BOA 0020 (Nimble Lightning + Pilot Training)	C/CPAF	Various : Various	-	-		-		4.650	Jan 2020	-		4.650	Continuing	Continuing	-
Flight Test Asset	Various	Lockheed Martin : Ft Worth, TX	-	-		-		105.000	Jan 2020	-		105.000	Continuing	Continuing	-
Prime LM DT AC Viability	C/CPAF	Lockheed Martin : Ft Worth, TX	-	-		-		79.000	Jan 2020	-		79.000	Continuing	Continuing	-
Prime PW Propulsion	SS/CPAF	Pratt Whitney : East Hartford, CT	-	-		-		82.000	Oct 2019	-		82.000	Continuing	Continuing	-
Prime LM Developmental Foundation Contract	C/CPIF	Lockheed Martin : Ft Worth, TX	-	-		-		201.000	Nov 2019	-		201.000	Continuing	Continuing	-
Prime TBD JRE Dev.	C/CPFF	Lockheed Martin : Ft Worth, TX	-	-		-		85.200	Dec 2019	-		85.200	Continuing	Continuing	-
Prime LM ALIS Next	C/CPFF	Lockheed Martin : Ft Worth, TX	-	-		-		68.000	Dec 2019	-		68.000	Continuing	Continuing	-
Prime LM ALIS Dev	C/CPIF	Lockheed Martin : Ft Worth, TX	-	-		-		58.000	Dec 2019	-		58.000	0.000	58.000	-
Prime LM F-35B Fatigue Test Article	C/CPFF	Lockheed Martin : Ft Worth, TX	-	-		-		21.300	Jan 2020	-		21.300	0.000	21.300	-
Training Investments	C/CPIF	Lockheed Martin : Ft Worth, TX	-	-		-		45.000	Dec 2019	-		45.000	0.000	45.000	-
Systems Engineering	Various	Various : Various	-	-		-		49.500	Jan 2020	-		49.500	Continuing	Continuing	-
Subtotal			-	-		-		1,410.865		-		1,410.865	Continuing	Continuing	N/A
Remarks															
FY2020 Product Development continued from PE 0207142F.															
Block 4 Modernization on R-2A includes Phase II, Nimble Lightning, JRE, & Systems Engineering.															
Flight Test assets include weapons to support Test and assests needed for flight test instrumentation.															

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Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
JSE/IPT Development Support	WR	NAWCAD : Paxtuxent River, MD	-	-		-		48.740	Dec 2019	-		48.740	Continuing	Continuing	-
China Lake Development Support	WR	NAWCAD : China Lake, CA	-	-		-		7.850	Dec 2019	-		7.850	Continuing	Continuing	-
Eglin Development Support	Various	Eglin AFB : Eglin AFB, FL	-	-		-		4.500	Dec 2019	-		4.500	Continuing	Continuing	-
Various Development Support	Various	Various : Various	-	-		-		27.000	Dec 2019	-		27.000	Continuing	Continuing	-
WPAFB Development Support	MIPR	AFRL : WP, AFB, OH	-	-		-		7.500	Dec 2019	-		7.500	Continuing	Continuing	-
JRE Development Support	Various	Various : Various	-	-		-		25.900	Dec 2019	-		25.900	0.000	25.900	-
ALIS Development Support	Various	Various : Various	-	-		-		16.933	Dec 2019	-		16.933	0.000	16.933	-
ALIS Next Development Support	MIPR	Various : Various	-	-		-		15.000	Dec 2019	-		15.000	0.000	15.000	-
<b>Subtotal</b>			-	-		-		153.423		-		153.423	Continuing	Continuing	N/A

**Remarks**

FY2020 Support continued from PE 0207142F.

Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
PAX Developmental Test & Evaluation	WR	NAWCAD : Patuxent River, MD	-	-		-		65.000	Dec 2019	-		65.000	Continuing	Continuing	-
China Lake Developmental Test & Evaluation	WR	NAWCWD : China Lake, CA	-	-		-		11.200	Dec 2019	-		11.200	Continuing	Continuing	-
Edwards AFB Developmental Test & Evaluation	Various	Edwards AFB : Edwards AFB, CA	-	-		-		22.455	Dec 2019	-		22.455	Continuing	Continuing	-
Various Developmental Test & Evaluation	Various	Various : Various	-	-		-		4.200	Dec 2019	-		4.200	Continuing	Continuing	-

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Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Kirtland AFB Operational Test & Evaluation	WR	Kirtland AFB : Kirtland AFB, NM	-	-		-		31.500	Dec 2019	-		31.500	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		134.355		-		134.355	Continuing	Continuing	N/A

**Remarks**

FY2020 Test and Evaluation continued from PE 0207142F.

Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
AFLCMC Civilian Pay	Allot	AFLCMC Clv Pay : Wright Patterson AFB, OH	-	-		-		44.172	Oct 2019	-		44.172	Continuing	Continuing	-
Financial Mgmt Database Support IDS	C/CPFF	Various : Various	-	-		-		1.565	Dec 2019	-		1.565	Continuing	Continuing	-
Earned Value/Finance/ Cost ACT-I	C/CPFF	Various : Various	-	-		-		4.201	Dec 2019	-		4.201	Continuing	Continuing	-
Systems System High BOS	C/CPFF	Various : Various	-	-		-		8.788	Dec 2019	-		8.788	Continuing	Continuing	-
Other CIO Services	Various	Various : Various	-	-		-		2.127	Dec 2019	-		2.127	Continuing	Continuing	-
Other Core Civ Pay	Various	NAWCAD : Various	-	-		-		11.000	Dec 2019	-		11.000	0.000	11.000	-
Other Core Contractor Sppt.	Various	Various : Various	-	-		-		8.218	Dec 2019	-		8.218	0.000	8.218	-
Travel	Various	Various : Various	-	-		-		4.250	Oct 2019	-		4.250	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		84.321		-		84.321	Continuing	Continuing	N/A

**Remarks**

FY2020 Management Services continued from PE 0207142F.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force											Date: February 2019		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0604840F / F-35 C2D2				Project (Number/Name) 675346 / F-35				
	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	-	-		0.000		1,782.964		-		1,782.964	Continuing	Continuing	N/A
Other Service Funding Adjustment	-	-		-		1,088.509		-		1,088.509			-
Project Cost Totals	-	-		-		694.455		-		694.455	0.000	0.000	-

## Remarks

Subtotals and totals may not add due to rounding.

Prior Year reflects \$0M due to PE 0207142F ending in FY19 and being replaced by PE 0604840F in FY20.  
FY20 reflects \$694.455M USAF/\$383.741M USN/\$422.881M USMC/\$281.887M International/Total \$1782.964M

R-2A (section B)/R-3 displays total combined program (i.e. not Service-specific), including International partners.

JSF Continuous Capability Development and Delivery (C2D2) Includes:

USAF PE 0207142F BPAC 675346

USN PE 0604810N Project Unit 2936 - ends FY18

USMC PE 0604810M Project Unit 2935 - ends FY18

USN PE 0604840N Project Unit 2936 - begins FY19

USMC PE 0604840M Project Unit 2935 - begins FY19

USN PE 0604800N Project Unit 9999 (FY14)

USMC PE 0604800M Project Unit 999 (FY14)

International Partner Contributions

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2020 Air Force			<b>Date:</b> February 2019		
<b>Appropriation/Budget Activity</b> 3600 / 7		<b>R-1 Program Element (Number/Name)</b> PE 0604840F / F-35 C2D2		<b>Project (Number/Name)</b> 675346 / F-35	

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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>675346 / F-35</b>																												
Systems Engineering & Development: Phase II Development																												
Systems Engineering & Development: Systems Engineering & Integration Contract																												
Systems Engineering & Development: Development Foundation Contract																												
Systems Engineering & Development: Development & Maturation IDIQ Contract																												
Agile Process & Capability Development: Agile Process & Capability Development																												
Verification & Validation: DT Aircraft Upgrades																												
Verification and Validation: Integrated Test																												
Verification and Validation: TR-3 Operational Test																												
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 11 Full Funding / Delivery																												
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 12 Full Funding / Delivery																												
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT13 Full Funding / Delivery																												
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 14 Full Funding / Delivery																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force																								Date: February 2019				
Appropriation/Budget Activity										R-1 Program Element (Number/Name)								Project (Number/Name)										
3600 / 7										PE 0604840F / F-35 C2D2								675346 / F-35										
	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 15 Full Funding / Delivery	<div></div>																											
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 16 Full Funding / Delivery	<div></div>																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2020 Air Force			<b>Date:</b> February 2019
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604840F / F-35 C2D2	<b>Project (Number/Name)</b> 675346 / F-35	

**Schedule Details**

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
<b>675346 / F-35</b>				
Systems Engineering & Development: Phase II Development	1	2019	1	2023
Systems Engineering & Development: Systems Engineering & Integration Contract	4	2021	4	2024
Systems Engineering & Development: Development Foundation Contract	1	2019	1	2023
Systems Engineering & Development: Development & Maturation IDIQ Contract	3	2023	4	2024
Agile Process & Capability Development: Agile Process & Capability Development	1	2019	4	2024
Verification & Validation: DT Aircraft Upgrades	1	2019	3	2021
Verification and Validation: Integrated Test	1	2019	4	2024
Verification and Validation: TR-3 Operational Test	4	2023	3	2024
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 11 Full Funding / Delivery	1	2019	4	2019
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 12 Full Funding / Delivery	1	2020	4	2020
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT13 Full Funding / Delivery	1	2021	4	2021
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 14 Full Funding / Delivery	1	2022	4	2022
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 15 Full Funding / Delivery	1	2023	4	2023
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LOT 16 Full Funding / Delivery	1	2024	4	2024