

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft /
BSA 2: Tactical Aircraft **P-1 Line Item Number / Title:**
F03500 / F-35 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207142F **Other Related Program Elements:** 0604800F

Line Item MDAP/MAIS Code: 198 **Item MDAP/MAIS Code(s):** N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	209.241	187.646	70.167	175.811	-	175.811	385.931	237.349	232.017	237.273	-	1,735.435
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	209.241	187.646	70.167	175.811	-	175.811	385.931	237.349	232.017	237.273	-	1,735.435
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	209.241	187.646	70.167	175.811	-	175.811	385.931	237.349	232.017	237.273	-	1,735.435

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The F-35 Joint Strike Fighter (JSF) Program will develop and deploy a family of highly common, affordable, next generation, stealthy, multi-role strike fighters that meet the needs of multiple services and countries. The United States Air Force F-35A Conventional Take Off and Landing (CTOL) correction of deficiencies effort provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field and depot retrofit. In order to meet emerging deficiencies the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate concurrency changes to sustain and improve F-35A system operations. Concurrency changes are implemented to coincide with resources and aircraft availability. Block upgrades provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35A platform. This modification program will bring early production aircraft and integrated systems to a common fleet configuration as fielded capabilities evolve over the course of the F-35 program.

The modification funding requested in the 2017 President's Budget enables several distinct efforts pertaining to the Air Force F-35A aircraft to include post aircraft delivery concurrency retrofits, to correct deficiencies, the block upgrade of hardware and software to a Block 3i configuration, and the block upgrade of software components to a full Block 3F configuration. Increase between FY16 and FY17 resulted from a re-phase of FY16 modification funding to better align with execution of requirements. Overall requirements between FY16 and FY17 have been reduced from the FY16 President's Budget to the FY17 President's Budget position.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES

The overlap of development with production and operations results in the need to manage a concurrency program and conduct retrofits on jets with life-limited parts or impacts to capabilities. For the F-35 program, the emergence of new concurrency issues is expected to phase out with the completion of System Development and Demonstration (SDD) in the FY18 timeframe. Block 3i Fleet Release occurred 4th Qtr FY15, Block 3F Fleet Release is planned by 3rd Qtr FY17 and Block 4 Developmental Test & Engineering (DT&E) (funded through the Follow On Development Project Unit) Fleet Release is planned by 2nd Qtr 2022.

The FY2017 funding request was reduced by \$119.859 million to account for the availability of prior year execution balances.

Funding for this exhibit contained in PE 0207142F.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

P-1 Line Item Number / Title:
F03500 / F-35 Modifications

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207142F **Other Related Program Elements:** 0604800F

Line Item MDAP/MAIS Code: 198 **Item MDAP/MAIS Code(s):** N/A

Exhibits Schedule				Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	F3512 / Block 2B OT Upgrade (Capability Improvement)			- / 11.093	- / 0.861	- / -	- / -	- / -	- / -
P-40a***	F3514 / Block 3F LRIP 2-5 Upgrade (Capability Improvement)			- / -	- / -	- / 6.790	- / 0.006	- / -	- / 0.006
P-40a***	F3515 / Block 3F LRIP 6-8 Upgrade (Capability Improvement)			- / -	- / -	- / -	- / -	- / -	- / -
P-40a***	F3517 / Correction of Deficiencies (Reliability & Maintainability)			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / Block 3i LRIP 2-5 Upgrade (Capability Improvement)			- / 63.420	- / 81.695	- / 44.797	- / 11.484	- / -	- / 11.484
P-3a	2 / Concurrency (Other)			- / 134.728	- / 105.090	- / 18.580	- / 164.320	- / -	- / 164.320
P-40	Total Gross/Weapon System Cost			- / 209.241	- / 187.646	- / 70.167	- / 175.811	- / -	- / 175.811

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	F3512 / Block 2B OT Upgrade (Capability Improvement)			- / -	- / -	- / -	- / -	- / -	- / 11.954
P-40a***	F3514 / Block 3F LRIP 2-5 Upgrade (Capability Improvement)			- / 0.540	- / 2.005	- / 0.250	- / -	- / -	- / 9.591
P-40a***	F3515 / Block 3F LRIP 6-8 Upgrade (Capability Improvement)			- / 0.056	- / -	- / 2.800	- / -	- / -	- / 2.856
P-40a***	F3517 / Correction of Deficiencies (Reliability & Maintainability)			- / -	- / -	- / 127.221	- / 134.544	- / -	- / 261.765
P-3a	1 / Block 3i LRIP 2-5 Upgrade (Capability Improvement)			- / 5.098	- / 2.117	- / 8.171	- / -	- / -	- / 216.782
P-3a	2 / Concurrency (Other)			- / 380.237	- / 233.227	- / 93.575	- / 102.729	- / -	- / 1,232.486
P-40	Total Gross/Weapon System Cost			- / 385.931	- / 237.349	- / 232.017	- / 237.273	- / -	- / 1,735.435

*** Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
Where applicable, justification for individual modifications is provided in the P-3A exhibits.

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Exhibit P-3a, Individual Modification: PB 2017 Air Force	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 1 / Block 3i LRIP 2-5 Upgrade
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Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	63.420	81.695	44.797	11.484	-	11.484	5.098	2.117	8.171	-	-	216.782
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	63.420	81.695	44.797	11.484	-	11.484	5.098	2.117	8.171	-	-	216.782
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	63.420	81.695	44.797	11.484	-	11.484	5.098	2.117	8.171	-	-	216.782
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This Modification Number (MN), effort MN-F3513 focuses on upgrading Blocks 1B, 2A, and 2B aircraft from LRIPs 2-5 to a Block 3i configuration. Block 3i is a stepping stone to the Block 3F configuration. It includes the procurement of hardware for the current Block 3i configuration. The parts include new radar modules, new Integrated Core Processor (ICP) modules and rack, and new Electronic Warfare (EW) modules. The Gen III Helmet will also be introduced as part of the Block 3i upgrade. This effort includes tooling and test equipment for Military Service Depots to support the execution of the Block Upgrade program.

Milestone/Development Status

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES
Block 3i Fleet Release occurred 4th Qtr FY15

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Exhibit P-3a, Individual Modification: PB 2017 Air Force										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2					P-1 Line Item Number / Title: F03500 / F-35 Modifications					Modification Number / Title: 1 / Block 3i LRIP 2-5 Upgrade			
Models of Systems Affected: F-35A				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800F					
Financial Plan	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Block 3i													
B Kits													
Recurring													
Block 3i:EQUIPMENT Group B (Active)	11 / 43.861	13 / 61.143	9 / 44.797	13 / 8.608	- / -	13 / 8.608	- / -	- / -	- / -	- / -	- / -	46 / 158.409	
<i>Subtotal: Recurring</i>	- / 43.861	- / 61.143	- / 44.797	- / 8.608	- / -	- / 8.608	- / -	- / -	- / -	- / -	- / -	- / 158.409	
<i>Subtotal: Block 3i</i>	- / 43.861	- / 61.143	- / 44.797	- / 8.608	- / -	- / 8.608	- / -	- / -	- / -	- / -	- / -	- / 158.409	
<i>Subtotal: Procurement, All Modification Items</i>	- / 43.861	- / 61.143	- / 44.797	- / 8.608	- / -	- / 8.608	- / -	- / -	- / -	- / -	- / -	- / 158.409	
Support (All Modification Items)													
SIM/TRAINER	0 / 6.396	- / 6.588	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.984	
Mod of Spares	- / 13.163	- / 13.964	- / -	- / 12.876	- / -	- / 12.876	- / -	- / -	- / -	- / -	- / -	- / 30.003	
<i>Subtotal: Support</i>	0 / 19.559	- / 20.552	- / -	- / 12.876	- / -	- / 12.876	- / -	- / -	- / -	- / -	- / -	- / 42.987	
Installation													
<i>Modification Item 1 of 1:</i> Block 3i	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.098	9 / 2.117	13 / 8.171	- / -	- / -	46 / 15.386	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.098	9 / 2.117	13 / 8.171	- / -	- / -	46 / 15.386	
Total													
Total Cost (Procurement + Support + Installation)	63.420	81.695	44.797	11.484	-	11.484	5.098	2.117	8.171	-	-	216.782	

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Exhibit P-3a, Individual Modification: PB 2017 Air Force		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 1 / Block 3i LRIP 2-5 Upgrade

Modification Item 1 of 1: Block 3i

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime (in Months): 10	Production Leadtime (in Months): 27

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Aug 2015	Aug 2016	Aug 2017				
Delivery Dates	Nov 2017	Nov 2018	Nov 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	11 / 2.337	- / -	- / -	- / -	- / -	11 / 2.337
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	13 / 2.761	- / -	- / -	- / -	- / -	13 / 2.761
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.117	- / -	- / -	- / -	9 / 2.117
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 8.171	- / -	- / -	13 / 8.171
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.098	9 / 2.117	13 / 8.171	- / -	- / -	46 / 15.386

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	6	5	7	6	3	2	2	2	4	3	3	3	-	-	-	-	-	46
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	6	5	7	6	3	2	2	2	4	3	3	3	-	-	-	-	-	46

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Exhibit P-3a, Individual Modification: PB 2017 Air Force **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 2 / Concurrency
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Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	134.728	105.090	18.580	164.320	-	164.320	380.237	233.227	93.575	102.729	-	1,232.486
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	134.728	105.090	18.580	164.320	-	164.320	380.237	233.227	93.575	102.729	-	1,232.486
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	134.728	105.090	18.580	164.320	-	164.320	380.237	233.227	93.575	102.729	-	1,232.486

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort (MN-F3516) funds retrofits due to concurrency changes to correct deficiencies discovered after DD-250 of the last aircraft in a given LRIP lot. This includes modifications required to extend aircraft service life currently limited by low-life parts, and relieve capability limitations driven by concurrency of production with development.

The concurrency funding line will procure the highest priority modifications from the Tri-Service Modification Prioritization List, as soon as they become supportable from an engineering, production, and installation standpoint. The list is vetted by the Services and Partners every 6 months to ensure the list accurately reflects existing requirements as well as emerging issues. Per-kit costs will vary for each modification being implemented, and in some cases will also vary for aircraft from different LRIP lots to implement an individual modification. For FY17, the highest priority modifications will directly support USAF IOC, Block 3i, and tactics development.

Total cost reflects procurement and installation costs in each fiscal year. Support costs include overall modification program planning, scheduling, and management; and support of Military and Service Depots and Depot Field Teams for incorporation of modifications.

The following modifications will be the highest priorities for accomplishment throughout the F-35A fleet using funds from this Budget Activity. FY17 concurrency funds will also be used to implement modifications across the rest of the USAF F-35A fleet. Increase between FY16 and FY17 resulted from a re-phase of FY16 modification funding to better align with execution of requirements. Overall requirements between FY16 and FY17 have been reduced from the FY16 President's Budget to the FY17 President's Budget position.

- | TI_Number Mod CR | Title/Description |
|-------------------------|---|
| TI-0000-0015 CR-018836 | Stress Failure of Hydraulic Tube Support Bracket |
| TI-0000-0031 CR-018835 | Nose Wheel Steering (NWS) Motor Qualification Failure |
| TI-0000-0045 CR-019003 | CTOL/STOVL MLG SDD & LRIP Part Number Rolls |
| TI-0000-0049 CR-019065 | Ordnance Quick Latch System (OQLS) FS 424 Latch Corrosion Control |
| TI-0000-0055 CR-019070 | IPP Bay Vent Fan Electrical Bond |
| TI-0000-0056 CR-019004 | IPP Controller Part Number Roll |
| TI-0000-0058 MVR-0X0080 | Back-Up Radio Tray Clearance |
| TI-0000-0063 CR-018838 | Bootstrap Accumulator Redesign |
| TI-0000-0064 CR-022872 | Counter Measures Door Control Valve Life Limitation on AF:6 |
| TI-0000-0098 CR-022695 | CTOL Nose Landing Gear |
| TI-0000-0117 CR-019107 | CTOL Trestle Inst Cotter Pin Alignment and Joint Clamp up (PR-45840) |
| TI-0000-0119 MVR-0X0620 | Production Ejection Seat (LRIP I & II) MWARS Replacement w Neg G Strap & New Cartridge Set Part Numbers |

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Exhibit P-3a, Individual Modification: PB 2017 Air Force		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 2 / Concurrency
TI-0000-0122 MVR-0X0019 28V Battery and Charger Changes TI-0000-0124 CR-019533 Controller, Motor Pump Qual Failure TI-0000-0129 CR-021322 MLG Control Valve Part Number Roll TI-0000-0130 CR-020289 Emergency Control Valve Qual Failure TI-0000-0132 CR-020907 Valve, Mechanical Sequence - T Qual Failure TI-0000-0133 CR-022196 Filter Module, Pressure Qual Failure TI-0000-0135 CR-021459 Engine Driven Pump Life Limit TI-0000-0137 CR-020793 Pump, Motor GND Maint Qual Failure TI-0000-0138 CR-018564 Wingtip Light Improvement For FAA Compliance TI-0000-0145 CR-019110 2AF:0006-0007 & AF:0017-0020.Record Control Panel(RCP)HARNESS RT ERR TI-0000-0147 CR-019258 PTMS PAO Three-Port Valve Part Number Roll TI-0000-0158 MVR-0X0026/CR-022877 WBDD Flexible Cable Re-design TI-0000-0161 CR-019418 EDU #1 & #2 Signal Deletion TI-0000-0165 CR-019135 R3 Float Valve with Mechanical Thread Locking TI-0000-0191 MVR-0X0178 270V BCCU TI-0000-0192 Gen II -10 Helmet Mounted Display Variance TI-0000-0193 CR-019291 EW Gain State Control Logic Error TI-0000-0208 CR-020003 CTOL Arresting Gear Push Rods - Incorrect Heat Treat for AI 2024-T4 TI-0000-0231 CR-019340 PTMS EHA Cooling Orifices - CTOL & STOVL TI-0000-0236 CR-019412 FPS Fire and Bleed Leak Controller (FBLC) Redesign TI-0000-0245 MVR-0X0067 Update to Antenna Switch Unit for Cosite Function & Qual Test Fails TI-0000-0260 CR-016633 Canopy Actuation System TI-0000-0263 CR-017121 Power Panel 1, 2, 3 TI-0000-0264 CR-019516 PTMS Controller Humidity, Temp, and Durability Qual Test Failures TI-0000-0281 CR-020226 Hoist Point Cover FIP Proposal TI-0000-0282 CR-025346 Update to Audio Control Electronics (ACE) Unit for Qual Test Fails TI-0000-0286 MVR-0X0136 Backup Radio (BuR) Indirect Lightning Qualification Test Failure TI-0000-0316 MVR-0X0158 CTOL & CV FS 496 Bulkhead Trunnion TI-0000-0329 CR-021982 Refueling Bay and Nozzle Clash LRIP 1-3 Modification TI-0000-0331 MVR-0X0025 WBDDS RGAs Limited Life - Change Request Approval TI-0000-0336 CR-024982 Panoramic Cockpit Display (PCD) - DU TI-0000-0339 HMDS LRIP Subsystem Variance - UUT Outages TI-0000-0343 CR-024982 Panoramic Cockpit Display (PCD) Major Variances - EU TI-0000-0344 MVR-0X0117 HMDS LRIP Subsystem Variance - Fixed Camera TI-0000-0358 CR-019771 Production Ejection Seat (-0021) TI-0000-0361 CR-023382 Vertical Tail 575 Fitting TI-0000-0363 CR-020636 TRS Component Changes from Qual Test Failures TI-0000-0367 MVR-0X0120/MVR-0X0121 Engine Trailer Adapter Kit - FS556 Interface, J27006/J27007 TI-0000-0386 CR-025191 Fuel System - Signal Amplifier TI-0000-0387 CR-016910 Fuel System - Dive Rate Performance TI-0000-0395 MVR-0X0591 LEF Inbd Blade Seal Mousehole and CTOL LEF Lwr Inbd Blade Seal Fails TI-0000-0398 CR-019930 Arresting Hook Aft Door Spring Damper Part Number Roll TI-0000-0405 CR-023769 EDU Random Vibration Fails Elect Dist Unit Full Qual TI-0000-0412 CR-020680 Wing Lighting Controller - Salt Fog Failure TI-0000-0423 CR-016270 Engine Interchangeability Bleed Air System Ducting Design TI-0000-0424 CR-020066 Firewall Shutoff Valve Part Number Roll		

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Exhibit P-3a, Individual Modification: PB 2017 Air Force		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 2 / Concurrency
<p>TI-0000-0425 MVR-0X0142 CCDD LRIP1-016 No Intercom Transmit During Air Refueling</p> <p>TI-0000-0432 MVR-0X0145 Short Life - CTOL Wing Forward Root Rib</p> <p>TI-0000-0441 MVR-0X0148 CTOL FS 594 Centre Arch Low Life</p> <p>TI-0000-0448 MVR-0X0053 Add -0007 ASSCA-0006 ATQA To Aircraft TVE</p> <p>TI-0000-0456 MVR-0X0156 Bulkhead - FS 450</p> <p>TI-0000-0457 MVR-0X0157 Bulkhead - FS 472</p> <p>TI-0000-0458 MVR-0X0159 Bulkhead - FS 518 Upper</p> <p>TI-0000-0460 MVR-0X0161 Bulkhead - FS 556</p> <p>TI-0000-0463 CR-017913 Support - Fairing, Mid, LH/RH</p> <p>TI-0000-0467 MVR-0X0168 Fuel Floor - FS496-556, LH</p> <p>TI-0000-0468 MVR-0X0169 Fuel Floor - FS496-556, RH</p> <p>TI-0000-0469 CR-022737 Life Suppt System (OBOGS, Steel BOS, SIC, SPA, PIC & Composite BOS)</p> <p>TI-0000-0477 CR-020097 CTOL EHAS Panels - Incorrect Fastener Grips and De-torque Issue</p> <p>TI-0000-0480 MVR-0X0007 ICC Qual Issues</p> <p>TI-0000-0495 CR-024922 OBIGGS & Pressure/Vent Changes for Lightning Protection</p> <p>TI-0000-0538 CR-020593 EHA Flaperon Support Equipment Locations</p> <p>TI-0000-0539 MVR-0X0205 Cracking of Bifurcation Seam Treatment</p> <p>TI-0000-0574 CR-023121 Electronics Units Mods for EMI, Lightning and Qual Compliance.</p> <p>TI-0000-0575 CR-020289 ULF & 3BSD Emergency Control Valve</p> <p>TI-0000-0576 CR-020289 Refuel Probe/Tailhook Emergency Control Valve</p> <p>TI-0000-0578 CR-020289 Aux Inlet Door Emergency Control Valve</p> <p>TI-0000-0583 MVR-0X0051 CTOL STOVL Rudder EHA Design Change</p> <p>TI-0000-0602 CR-020398 Brake Control Unit (BCU) Wet Runway Update & Op of a Wet Runway</p> <p>TI-0000-0607 CR-021434 Limited Life CTOL STA 3/9 Aft Rib</p> <p>TI-0000-0608 Fwd Upper Engine Mount (CTOL)</p> <p>TI-0000-0626 SMSFRIU SDD/LRIP Arm Disable Input</p> <p>TI-0000-0631 CR-021180 Countermeasures Doors & NNMSB/WSESRB Concerns</p> <p>TI-0000-0654 CR-020726 IDMS Connector Ref Des Swap</p> <p>TI-0000-0655 MVR-0X0014 EO DAS Center Fuselage Vibration Testing</p> <p>TI-0000-0671 MVR-0X0208 IFF Transponder Operation During Emergency Conditions</p> <p>TI-0000-0673 CR-020743 Ordnance Quick Latch System (OQLS) - Clip Lock</p> <p>TI-0000-0683 CR-017534 CR-017534 Rev- HT Bearing Issues</p> <p>TI-0000-0707 MVR-0X0062 Air Data System Design Changes For -0004 Configuration</p> <p>TI-0000-0709 MVR-0X0084 HT EHA Block Change</p> <p>TI-0000-0723 MVR-0X0243 EOTS PBS Startup Timeline</p> <p>TI-0000-0737 CR-024922 IPP Purge Issue Due to Low Fuel Shutdown</p> <p>TI-0000-0738 Modified Fuel Dump Valve (T28a)</p> <p>TI-0000-0771 MVR-0X0250 Install Battery into CNI Rack 3A and 3B</p> <p>TI-0000-0772 PTMS Turbomachine/ACCM Cable Interface Changes</p> <p>TI-0000-0802 CR-022695 CTOL Main Landing Gear</p> <p>TI-0000-0808 CR-021259 Weapons Bay Door Uplock Sealing</p> <p>TI-0000-0833 CR-021053 Short Shank Condition on Engine Inspection Panels</p> <p>TI-0000-0854 CR-021107 DMCH MPEG VHDL Firmware Version</p> <p>TI-0000-0866 CR-021262/ CR-022737 Production Ejection Seat (-0023)</p> <p>TI-0000-0884 CR-024000 AESG - Material & Workmanship</p> <p>TI-0000-0895 CR-021557 Arm Disable Current Leakage Path Correction</p>		

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<p>TI-0000-0898 MVR-0X0363 Electronic Warfare Band 3/4 Antenna and Edge Performance Issues</p> <p>TI-0000-0910 CR-021395 PCD EU Cooling Rework</p> <p>TI-0000-0913 CR-025087 LEFAS PDU Resolver and Rotor Shaft Seal Life</p> <p>TI-0000-0945 CTOL Audio Control Electronics (ACE) In-Flight Refueling</p> <p>TI-0000-0992 CR-013553 Outboard Vertical Tail Seal Redesign</p> <p>TI-0000-0998 CR-021916 CTOL and CV Refuel System Mod</p> <p>TI-0000-1000 CR-022481 Inboard Weapon Bay Door Flipper Door Design Change</p> <p>TI-0000-1011 MVR-0X0367 L-Band Pre-Selector (LBPS) Propagation Delay Calibration for Mode 5</p> <p>TI-0000-1048 CR-024982 Panoramic Cockpit Display-Electronic Unit (PCD-EU)</p> <p>TI-0000-1056 CR-016660 RADAR 1A & 1B Racks -0002 Cut-in</p> <p>TI-0000-1060 CR-022121 Final Finishes</p> <p>TI-0000-1078 CR-025006 Nacelle Insulation</p> <p>TI-0000-1082 MVR-0X0373 Power Panel 1 & 2 Random Vibration Failures - Second Failure</p> <p>TI-0000-1092 CR-022666 Landing Taxi Light Redesign</p> <p>TI-0000-1099 CR-022841 ATQA Mounting Bolt Interface</p> <p>TI-0000-1102 CR-022481 BH-1 Weapons Bay Doors - AMRAAM Cradle Found Fatigue Cracks in Cradle Lugs @ 11,353 Hours</p> <p>TI-0000-1113 CR-024000 AESG Power Connector Rating (Generator)</p> <p>TI-0000-1161 CR-022656 STOVL Aft MLG Door Cracking</p> <p>TI-0000-1192 CR-026590 Short Life - CTOL Thrust Mount Shear Web / 2WSH43777-0001 and 2WSH43778-0001 Do Not Meet Service Life Requirement</p> <p>TI-0000-1198 CR-026143 HT Heating</p> <p>TI-0000-1255 CR-023093 Fibre Channel Switch Design Issues-0004</p> <p>TI-0000-1324 CR-022656 Structural Cracking of Aft MLG Door Drive Link U-Joint</p> <p>TI-0000-1362 Production Incorporation of Improved ANR into VSI HMD</p> <p>TI-0000-1372 EW Block-2 DRFM Module Firmware Issue</p> <p>TI-0000-1396 CR-023112 HTCA with End Gland Material Issue</p> <p>TI-0000-1408 CCDD LRIP4/LRIP 5-016 EW: AEL, Aft Sector</p> <p>TI-0000-1472 CR-023094 Gun Port Door Threads in Bearing Issue</p> <p>TI-0000-1483 MVR-0X0373 Power Panel 3 Random Vibration Failures - Second Failure</p> <p>TI-0000-1485 CR-023282 F1 Feed Tank Gasket Spill Out/Removing F1 Feed Tank Cover Gasket And Reworking To Production Fay Seal Configuration</p> <p>TI-0000-1494 CR-023133 PTMS Turbomachine Configuration to Correct Qualification Failures</p> <p>TI-0000-1515 CR-024000 ESG Service Life (Generator) -0003</p> <p>TI-0000-1518 CR-024193 Incorrect PAO Orifice In P5 Gp A Dummy LRU; Incorrect PAO Cooling Orifices In Center Fuselage Cold Liquid Loop</p> <p>TI-0000-1549 CR-023540 Firmware Update for AMS Cartridge Reset SPAR</p> <p>TI-0000-1551 CR-023874 28V Battery Full Qualification</p> <p>TI-0000-1552 CR-023874 28V BCCU Lightning Compliance - 28V Battery Charger</p> <p>TI-0000-1589 CR-023300 Hydraulic System Single Point Failure</p> <p>TI-0000-1650 CR-022737 MWARS for Production Seat (LRIP 1-6)</p> <p>TI-0000-1652 CR-023599 Rudder Slider Hinge Wear</p> <p>TI-0000-1653 CR-026539 Ground Maint Valve Deletion to Prevent PAO in Cockpit (DR 1-4815699)</p> <p>TI-0000-1706 CR-024068 Insert updated DMCH LRIP6 w Night Vision Camera Image Qual Improve</p> <p>TI-0000-1761 HT EHA Solenoid Valve (SOV) Qual Test Failure</p> <p>TI-0000-1783 CR-025111 Canopy Boot Cracking</p> <p>TI-0000-1786 CR-023729 AJ-1 Test Incident - Cracked stiffener on the FS402 frame (TIN-075)</p> <p>TI-0000-2450 CR-023901 Bleed Air Sensor Fitting Galling</p> <p>TI-0000-2467 CR-025204 CTOL FS 503 Frame Limited Life</p> <p>TI-0000-2468 CR-025204 CTOL IPP Shear Web Limited Life Discovery</p>		

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<p>TI-0000-2506 MVR-0X0551 Gun Port Blast Mislocation TI-0000-2528 MVR-0X0607 270V Battery Gunfire Vibration Failure TI-0000-2551 CR-024922 L-Band Power Amplifier (LBPA) Update for LINK-16 TI-0000-2580 MVR-0X0639 AESG -0004 Qual Failure TI-0000-2624 CR-025684 Lower Horizontal Tail Bullnose Panels Experiencing Coating Damage (panels 4134/4133) TI-0000-2633 CR-024265 Flaperon Blade Seal Buckling TI-0000-2659 CR-026105 Cockpit Green Indicator Bright/Dim Anomaly TI-0000-2672 Radome Shroud Gapping / Trimming TI-0000-2674 CR-024794 Cracking of Bifurcation Seam Treatment TI-0000-2690 LAU-147 and BRU Vent Valve Under Full Pressure TI-0000-2699 CR-023093 Fibre Channel Switch Design Issues -0005 TI-0000-2714 CR-022737 -0025 Ejection Seat Qual Issues TI-0000-2725 CR-024162 Vehicle Mgmt Computer (VMC) Elect Connect Issue on CTOL and STOVL AC TI-0000-2784 CR-025512 CNI 3A & 3B Integrated Backplane Assembly (IBA) EMI Upgrades TI-0000-2786 CR-023093 Upgrade ICP Fibre Channel Switch Module to Address MS Stab Issues TI-0000-2800 MVR-0X0590 CNI TFR Module Humidity Qualification Test Failure TI-0000-2818 CR-025637 EOTS LoS Pointing Angle TI-0000-2833 MVR-0X0587 Gun System Muzzle and Purge Door Time Out TI-0000-2865 TR2 - SP-SPIO Issue TI-0000-2891 CR-022105 OBIGGS Wash Pressure Buildup in Refuel Manifold TI-0000-2909 CR-025167 IPP Bay High Flow Air Duct Separation TI-0000-2921 MVR-0X0586 Gun Vent Door Unpainted Brackets TI-0000-3041 CR-025499 Nacelle Ventilation Intake (NVI) Failure Investigation TI-0000-3054 CR-025562 Ammunition Handling System (AHS) Carrier Belt Rollers TI-0000-3099 MVR-0X0624 Gun Fwd Mount Muzzle Sleeve Nut Plate TI-0000-3100 MVR-0X0627 Horizontal Tail Bearing Specification Change TI-0000-3194 MVR-0X0638 Landing Aid Down Converter (LADC) Qualification Test Failure TI-0000-3280 MVR-0X0649 F-35A FS 383 Frame Short Life TI-0000-3281 CR-026430 F-35A FS 402 Frame Short Life TI-0000-3284 MVR-0X0654 F-35A Center Fuselage F2 Floor Durability Life TI-0000-3285 MVR-0X0655 Egress System Safe Escape Intro for -6 Seat TI-0000-3386 MVR-0X0661 MLG Door Crank Arm Corrosion F35-A/B TI-0000-3597 F-35 Fuel Tank Overpressure TI-7777-0003 Block 1.0-v01.702 Formal Systems Build (Rev B - MVI R10.1.3 software. Rev C captures ALIS 1.0.2E.1 software mod) (Rev D addresses AV software mod .702 for CTOL and new MVI R11.x.2.2) TI-7777-0004 MLG Strut Redesign TI-7777-0007 OBOGS Plenum HEPA Filter Provisioning TI-7777-0010 CR-016660 Radar Harness Redesign TI-7777-0024 Gun Gas Purge & Gun Port Door Actuators TI-7777-0031 Brake Control Electronic Unit Update TI-7777-0042 MVR-0X0074 Return Fuel Cooler HX Coating TI-7777-0057 Nacelle Fan - Full Qualified Configuration TI-7777-0077 CR-016660 Small Diameter Bomb (SDB) Rack Strut TI-7777-0081 270V BCCU Change TI-7777-0083 CTOL/STOVL EHAS/LEFAS -0011 EU & Rack Config Update TI-7777-0084 MVR-0X0003 ACCM Filter Pin</p>		

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Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2	P-1 Line Item Number / Title: F03500 / F-35 Modifications	Modification Number / Title: 2 / Concurrency
TI-7777-0085 Replacement of Door Actuator Lock Assemblies (STOVL/CTOL Door Locks) TI-7777-0087 CTOL/STOVL/CV Flaperon EHA Pump Design Change TI-7777-0089 CR-017095 Avionics Bay Environmental Seal Change TI-7777-0093 CR-017505 Flow Sensor EMI/Vibration TI-7777-0095 MVR-0X0008 Manual Drive Unit TI-7777-0097 IEU Lightning Compliance TI-7777-0101 NLG Down Lock Actuator TI-7777-1001 LRIP 1&2 Block 1 Upgrade TI-7777-1002 Replacement of Block 1B Hardware and Issuance of Block 1B Software TI-9999-0191 CR-023040/CR-024623 Interim Solution - 270V BCCU TI-9999-1650 MWARS for Production Seat - LRIP 5 Only		
Milestone/Development Status		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES For the F-35 program, the discovery of new concurrency changes phases out with the completion of SDD.		

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Appropriation / Budget Activity / Budget Sub Activity: 3010F / 05 / 2					P-1 Line Item Number / Title: F03500 / F-35 Modifications					Modification Number / Title: 2 / Concurrency			
Models of Systems Affected: F-35A				Modification Type: Other				Related RDT&E PEs: 0604800F					
Financial Plan	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Concurrency</i>													
A Kits													
Recurring													
Concurrency:INSTALL KITS Group A (Active)	- / 134.728	- / 101.290	- / 12.930	- / 153.820	- / -	- / 153.820	- / 345.376	- / 198.454	- / 63.050	- / 70.639	- / -	- / 1,080.287	
<i>Subtotal: Recurring</i>	- / 134.728	- / 101.290	- / 12.930	- / 153.820	- / -	- / 153.820	- / 345.376	- / 198.454	- / 63.050	- / 70.639	- / -	- / 1,080.287	
<i>Subtotal: Concurrency</i>	- / 134.728	- / 101.290	- / 12.930	- / 153.820	- / -	- / 153.820	- / 345.376	- / 198.454	- / 63.050	- / 70.639	- / -	- / 1,080.287	
<i>Subtotal: Procurement, All Modification Items</i>	- / 134.728	- / 101.290	- / 12.930	- / 153.820	- / -	- / 153.820	- / 345.376	- / 198.454	- / 63.050	- / 70.639	- / -	- / 1,080.287	
Support (All Modification Items)													
ICS-Labor	- / -	- / 3.500	- / 5.250	- / 5.000	- / -	- / 5.000	- / 29.328	- / 28.968	- / 25.513	- / 26.577	- / -	- / 124.136	
OTHER GOVT	- / -	- / 0.300	- / 0.400	- / 5.500	- / -	- / 5.500	- / 5.533	- / 5.805	- / 5.012	- / 5.513	- / -	- / 28.063	
<i>Subtotal: Support</i>	- / -	- / 3.800	- / 5.650	- / 10.500	- / -	- / 10.500	- / 34.861	- / 34.773	- / 30.525	- / 32.090	- / -	- / 152.199	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	134.728	105.090	18.580	164.320	-	164.320	380.237	233.227	93.575	102.729	-	1,232.486	

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Modification Item 1 of 1: Concurrency

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
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Administrative Leadtime (<i>in Months</i>): 0	Production Leadtime (<i>in Months</i>): 0
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Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	Installation Quantity: 0
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