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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0101125F I Nuclear Weapons Modernization							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	81.617	62.373	33.000	198.357	-	198.357	213.532	207.919	153.698	97.276	42.944	1,090.716
657007: B61 LIFE EXTENSION PROGRAM	81.617	62.373	33.000	198.357	-	198.357	213.532	207.919	153.698	97.276	42.944	1,090.716
MDAP/MAIS Code: 468												
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
The purpose of this program element is to conduct and support United States Air Force (USAF) and Joint Department of Defense (DoD)- Department of Energy (DOE) acquisition activities for the modernization of nuclear weapons.												
B61 Life Extension Program (LEP): The B61 LEP will extend the service life of the weapon. Provides programmatic integration of the Air Force-led, joint DoD-DOE program through the B61 LEP Project Officers Group (POG) and its subgroups. In accordance with Air Force Materiel Command mission assignment memo (dated 17 Feb 2011) and National Nuclear Security Administration (NNSA)-Air Force Nuclear Weapons Center (AFNWC) Memorandum of Understanding (MOU dated 28 June 2012), the USAF is responsible for development, acquisition & delivery of a guided Tailkit Assembly (TKA) and All Up Round (AUR) technical integration, system qualification & fielding of the B61-12 variant.												
This program is in Budget Activity 5, System Development and Demonstration (SDD), because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.												
B. Program Change Summary (\$ in Millions)				FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total				
Previous President's Budget				80.200	67.874	200.634	-	200.634				
Current President's Budget				62.373	33.000	198.357	-	198.357				
Total Adjustments				-17.827	-34.874	-2.277	-	-2.277				
• Congressional General Reductions				-0.106	-							
• Congressional Directed Reductions				-	-34.874							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-9.077	-							
• SBIR/STTR Transfer				-1.882	-							
• Other Adjustments				-6.762	-	-2.277	-	-2.277				

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Change Summary Explanation FY13: Reprogrammings, -\$9.077M reprogrammed due to higher USAF priorities FY13: Other adjustment, -\$6.762M due to Sequestration FY14: Congressional Directed Reduction, -\$34.874M FY15: Base BY1 Other adjustment, -\$2.277M due to higher USAF priorities		

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0101125F / Nuclear Weapons Modernization				Project (Number/Name) 657007 / B61 LIFE EXTENSION PROGRAM			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
657007: B61 LIFE EXTENSION PROGRAM	81.617	62.373	33.000	198.357	-	198.357	213.532	207.919	153.698	97.276	42.944	1,090.716
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
B61 Life Extension Program (LEP): The B61 LEP will extend the service life of the weapon. Provides programmatic integration of the Air Force-led, joint DoD-DOE program through the B61 LEP Project Officers Group (POG) and its subgroups. In accordance with Air Force Materiel Command mission assignment memo (dated 17 Feb 2011) and National Nuclear Security Administration (NNSA)-Air Force Nuclear Weapons Center (AFNWC) Memorandum of Understanding (MOU dated 28 June 2012), the USAF is responsible for development, acquisition & delivery of a guided tailkit assembly (TKA) and All Up Round (AUR) technical integration, system qualification & fielding of the B61-12 variant.												
This program is in Budget Activity 5, System Development and Demonstration (SDD), because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: Engineering & Manufacturing Development Contract (B61)									25.605	4.878	103.108	
Description: Prime contract to develop, test, integrate and nuclear certify a guided TKA in support of the B61-12 LEP.												
FY 2013 Accomplishments: Performed B61-12 TKA development, design, test, integration, qualification and nuclear certification activities in support of the B61-12 LEP. Supported design, integration and testing of the B61-12 system and verification of requirements and validation of TKA performance. Established and implemented B61-12 TKA program practices that ensure the following are met: requirements flow down, requirement allocation to hardware and software, requirements compliance matrix, system performance, reliability, maintainability, product assurance, testability, producibility and supportability.												
FY 2014 Plans: Continues B61-12 TKA development, design, test, integration, qualification and nuclear certification activities in support of the B61-12 LEP. Continues design, integration and testing of the B61-12 system and verification of requirements and validation of TKA performance. Continues 61-12 TKA program practices that ensure the following are met: requirements flow												

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Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0101125F / <i>Nuclear Weapons Modernization</i>		Project (Number/Name) 657007 / <i>B61 LIFE EXTENSION PROGRAM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2013	FY 2014	FY 2015
down,requirement allocation to hardware and software, requirements compliance matrix, system performance, reliability, maintainability, product assurance, testability, producibility and supportability.					
FY 2015 Plans: Continues B61-12 TKA development, design, test, integration, qualification and nuclear certification activities in support of the B61-12 LEP. Continues design, integration and testing of the B61-12 system and verification of requirements and validation of TKA performance. Continues B61-12 TKA program practices that ensure the following are met: requirements flow down, requirement allocation to hardware and software, requirements compliance matrix, system performance, reliability, maintainability, product assurance, testability, producibility and supportability. Conducting seven contractor flight tests with weapons drops in preparation for the Critical Design Review (CDR) and closure of the Engineering Manufacturing and Development (EMD) phase one activities. Providing support to three Department of Energy (DOE) flight tests in support of the Preliminary Design Review for the bomb assembly. Also conducting B-2A Operational Flight Program development and integration at the Weapon System Support Center (WSSC) to deliver the OFP test tape in support of FY 16 flight testing.					
Title: All Up Round (AUR) Technical Integration (B61) Description: Covers all system engineering tasks in support of AUR technical integration, qualification & fielding, including program support to the B61 LEP POG.			9.334	9.471	17.069
FY 2013 Accomplishments: Developed B61-12 system qualification plan, warhead component qualification, TKA qualifications, and B61-12 AUR integration activities. Provided support to maintain technical and programmatic schedules and program documents that support the AUR technical integration. Developed warhead-to-TKA interface requirements and design. Provided technical expertise to maintain B61-12 aircraft compatibility with all 5 delivery platforms through completion of a test and evaluation program. Developed Combined Test Units (CTUs) to support early integration efforts at the aircraft system integration laboratories. Conducted B61-12 AUR technical and programmatic reviews, including design reviews, systems reviews, technical interchange meetings, and test reviews. Also conducted test assessments to validate model & simulation results in support of system qualification; configuration management of B61-12 AUR drawings, interface control documents, and system specifications; and development of trainers and other USAF configurations.					
FY 2014 Plans: Continues B61-12 system qualification plan, warhead component qualification, TKA qualifications, and B61-12 AUR integration activities. Continues support to maintain technical and programmatic schedules and program documents that support the AUR technical integration. Continues to develop warhead-to-TKA interface requirements and design. Continues to provide technical expertise to maintain B61-12 aircraft compatibility with all 5 delivery platforms through completion of a test and evaluation program. Continues to develop CTUs to support early integration efforts at the aircraft system integration laboratories.					

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Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0101125F / Nuclear Weapons Modernization	Project (Number/Name) 657007 / B61 LIFE EXTENSION PROGRAM		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Conducting B61-12 AUR technical and programmatic reviews, including design reviews, systems reviews, technical interchange meetings, and test reviews. Also conducting test assessments to validate model & simulation results in support of system qualification; configuration management of B61-12 AUR drawings, interface control documents, and system specifications; and development of trainers and other USAF configurations. FY 2015 Plans: Continues B61-12 system qualification plan, warhead component qualification, TKA qualifications, and B61-12 AUR integration activities. Continues support to maintain technical and programmatic schedules and program documents that support the AUR technical integration. Continues to develop warhead-to-TKA interface requirements and design. Continues to provide technical expertise to maintain B61-12 aircraft compatibility with all 5 delivery platforms through completion of a test and evaluation program. Continues to develop CTUs to support early integration efforts at the aircraft system integration laboratories. Includes B61-12 AUR technical and programmatic reviews, including design reviews, systems reviews, technical interchanges meetings, and test reviews. Also includes test assessments to validate models & simulation results in support of system qualification; configuration management of B61-12 AUR drawings, interface control documents, and system specifications; and development of trainers and other USAF configurations. Conducting seven contractor flight tests with weapons drops in preparation for the Critical Design Review (CDR) and closure of the Engineering Manufacturing and Development (EMD) phase one activities. Providing AUR integration support to three Department of Energy (DOE) flight tests in support of the Preliminary Design Review for the bomb assembly.				
Title: Aircraft Integration (B61) Description: B61-12 integration with threshold aircraft, including mission planning system upgrades to accommodate the new weapon variant and weapon design compatibility with objective aircraft. FY 2013 Accomplishments: Acquisition planning, meeting participation and fit checks for threshold aircraft. Also provided F-15E Suite 8 test tape development and demonstration/validation of the Programmable Armament Control System's (PAC) Operational Flight Program (OFP). Also provided fit check and design compatibility with objective aircraft. Included development of Mission Planning upgrades to Air Vehicle System (AVS), Joint Mission Planning System (JMPS), and Combat Weapon Delivery Software (CWDS). FY 2014 Plans: Continues meeting participation and fit checks for threshold aircraft. Continues F-15E Suite 8 test tape development and demonstration/validation of the OFP. Continues design compatibility with objective aircraft. Continues Mission Planning upgrades. FY 2015 Plans: Continues meeting participation and fit checks for threshold aircraft. Continues F-15E Suite 8 test tape development and demonstration/validation of the Operational Flight Program (OFP). Continues design compatibility with F-15E and B-2A objective		16.218	12.308	52.417

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Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0101125F / <i>Nuclear Weapons Modernization</i>	Project (Number/Name) 657007 / <i>B61 LIFE EXTENSION PROGRAM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014
aircraft. Continues Mission Planning upgrades. Conducting B-2A Operational Flight Program development and integration at the Weapon System Support Center (WSSC) to deliver the OFP test tape in support of FY 16 flight testing.			
Title: Test Support (B61)		11.216	6.343
Description: Test activities & support for TKA design validation & verification and nuclear certification, as well as B61-12 AUR system qualification (includes design & operational certification activities).			
FY 2013 Accomplishments: Test planning and execution activities to support B61-12 weapon development, AUR technical integration and aircraft integration were conducted. Provided ground test activities to verify warhead-to-tailkit integration to include wind tunnel testing. Provided aircraft and support equipment fit check activities. Provided flight testing to verify aircraft flight environments in support of weapon development. Also provided for the development and delivery of necessary bomb assemblies (BAs) to accomplish TKA test and trainer activities.			
FY 2014 Plans: Continues test planning and execution activities to support B61-12 weapon development, AUR technical integration and aircraft integration. Continues ground test activities to verify warhead-to-tailkit integration to include wind tunnel testing. Provides aircraft and support equipment fit check activities. Continues flight testing to verify aircraft flight environments in support of weapon development. Also, provides flight testing for tailkit and AUR design verification. Continues development and delivery of necessary BAs to accomplish TKA test and trainer activities.			
FY 2015 Plans: Continues test planning and execution activities to support B61-12 weapon development, AUR technical integration and aircraft integration. Continues ground test activities to verify warhead-to-tailkit integration to include wind tunnel testing. Provides aircraft and support equipment fit check activities. Continues flight testing to verify aircraft flight environments in support of weapon development. Also, provides flight testing for tailkit and AUR design verification. Continues development and delivery of necessary BAs to accomplish TKA test and trainer activities. Conducting seven contractor flight tests with weapons drops in preparation for the Critical Design Review (CDR) and closure of the Engineering Manufacturing and Development (EMD) phase one activities. Providing support to three Department of Energy (DOE) flight tests in support of the Preliminary Design Review for the bomb assembly. Also conducting B-2A Operational Flight Program development and integration at the Weapon System Support Center (WSSC) to deliver the OFP test tape in support of FY 16 flight testing.			
Accomplishments/Planned Programs Subtotals		62.373	33.000

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Appropriation/Budget Activity 3600 / 5				R-1 Program Element (Number/Name) PE 0101125F / Nuclear Weapons Modernization				Project (Number/Name) 657007 / B61 LIFE EXTENSION PROGRAM			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2015</u>	<u>FY 2015</u>	<u>FY 2015</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Complete</u>	<u>Total Cost</u>
• PAAF: BAA1 WSC354040: PE 0101125F: B61	-	-	-	-	-	-	-	147.872	210.671	2.557	361.100
Remarks											
D. Acquisition Strategy											
Full and open competition as approved by the MDA.											
E. 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 2015 Air Force												Date: March 2014			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0101125F / <i>Nuclear Weapons Modernization</i>						Project (Number/Name) 657007 / <i>B61 LIFE EXTENSION PROGRAM</i>			
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
B61 LEP EMD Contract	C/CPIF	Boeing : ,	71.273	21.360	Jul 2013	1.000	Nov 2013	96.838	Nov 2014	-		96.838	283.660	474.131	TBD
Subtotal			71.273	21.360		1.000		96.838		-		96.838	283.660	474.131	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
AUR Technical Integration	MIPR	Various : ,	2.255	9.334	Apr 2013	9.471	Apr 2014	17.069	Oct 2014	-		17.069	40.601	78.730	-
Aircraft Integration	MIPR	Various : ,	1.109	16.218	Mar 2013	12.308	Oct 2014	52.417	Oct 2014	-		52.417	170.267	252.319	-
Subtotal			3.364	25.552		21.779		69.486		-		69.486	210.868	331.049	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Test Support for B61 LEP Development	MIPR	RTO : ,	0.105	11.216	Jun 2013	6.343	Jun 2014	25.763	Oct 2014	-		25.763	197.061	240.488	-
Subtotal			0.105	11.216		6.343		25.763		-		25.763	197.061	240.488	-
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
PMA	Various	Not specified. : ,	6.875	4.245	Oct 2012	3.878	Oct 2013	6.270	Oct 2014	-		6.270	23.780	45.048	TBD
Subtotal			6.875	4.245		3.878		6.270		-		6.270	23.780	45.048	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			81.617	62.373		33.000		198.357		-		198.357	715.369	1,090.716	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force							Date: March 2014			
Appropriation/Budget Activity 3600 / 5			R-1 Program Element (Number/Name) PE 0101125F / <i>Nuclear Weapons Modernization</i>			Project (Number/Name) 657007 / <i>B61 LIFE EXTENSION PROGRAM</i>				
	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

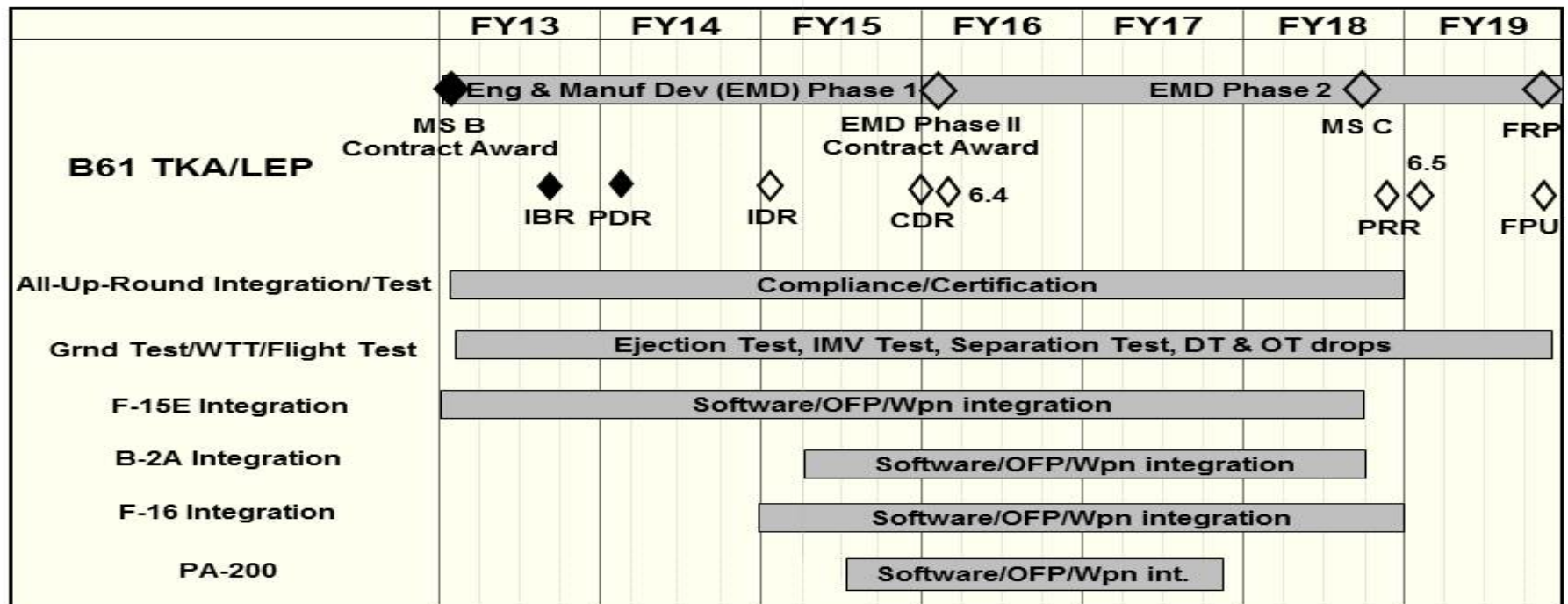
Date: March 2014

Appropriation/Budget Activity
3600 / 5

R-1 Program Element (Number/Name)
PE 0101125F / *Nuclear Weapons*
Modernization

Project (Number/Name)
657007 / *B61 LIFE EXTENSION*
PROGRAM

B61-12 TKA Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0101125F / <i>Nuclear Weapons Modernization</i>	Project (Number/Name) 657007 / <i>B61 LIFE EXTENSION PROGRAM</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone B Decision	1	2013	1	2013
Engineering & Manufacturing Development Phase 1 Contract	1	2013	1	2015
All-Up-Round Integraton Test	1	2013	4	2018
Ground Test/WTT/Flight Test	1	2013	4	2019
F-15E Integration	1	2013	4	2018
B-2A Integration	2	2015	4	2018
F-16 Integration	1	2015	4	2018
PA-200	3	2015	4	2017
Milestone C Decision	3	2018	3	2018