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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0101126F I B-1B Squadrons							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	2.174	5.830	62.471	0.000	62.471	67.101	0.000	18.414	8.020	Continuing	Continuing
675344: B-1B Modernization	-	2.174	5.830	62.471	0.000	62.471	67.101	0.000	18.414	8.020	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 07 PE 0101126F, project 675344, Fully Integrated Targeting Pod, is a new start.
This program, BA 07 PE 0101126F, project 675344, Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out, is a new start.
This program, BA 07 PE 0101126F, project 675344, Radio Crypto Compliance, is a new start.
This program, BA 07 PE 0101126F, project 675344, Multifunctional Information Distribution System-Joint Tactical Radio System, is a new start.
This program, BA 07 PE 0101126F, project 675344, Bomb Rack Unit - 56, is a new start.

In FY17 Global Positioning System (GPS) Military-Code (M-Code) was a new start.

A. Mission Description and Budget Item Justification

The B-1B Lancer is a swing-wing, supersonic, long-range, conventional bomber. It carries the largest payload of both guided and unguided weapons in the United States Air Force inventory. The multi-mission B-1B is the backbone of America's long-range conventional bomber force and can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, anywhere in the world, at any time. The current service life extends beyond 2040.

The B-1B modernization projects alleviate aircraft obsolescence issues due to Diminishing Manufacturing Sources (DMS) while at the same time providing improved capabilities to the B-1B weapon system that require significant hardware and software development and testing.

FULLY INTEGRATED TARGETING POD (FITP)

Fully Integrated Targeting Pod (FITP) Modification permanently integrates the advanced targeting pod (ATP) capability into the B-1B's avionics flight software and replaces the B-1B's Temporary T-1 Beyond Line of Sight (BLOS)/Laptop Controlled Targeting Pod (LCTP) system with increased situational awareness, weapons de-confliction, and intelligence, surveillance and reconnaissance within the Combat Air Forces (CAF). FITP will provide robust combat targeting processing power, computing speed & throughput for aircrew mission planning, a permanent sustainment support structure. It will provide all four crew members access to targeting pod information displayed on digital high definition quality video using the Integrated Battle Station (IBS) multi-function displays (MFDs) and cursor controller. FITP will address the aircrew ergonomic issues caused by the current system configuration, allowing more rapid prosecution of targets with improved integration with Avionics Flight Software (AFS) capabilities. In addition, FITP will provide growth capability for implementation and interaction with follow-on systems to augment targeting pod use. Furthermore, the Fully Integrated Targeting Pod (FITP) removes the need for Interim Contractor Support (ICS) sustainment support structure, resolving DMS issue.

MODE 5/S AUTOMATIC SURVEILLANCE BROADCAST (ADS-B) OUT

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<p>B-1 Identification Friend or Foe (IFF) Mode 5 is the replacement for the B-1 Mark XII IFF Mode 4. Mode 5 will provide secure target identification and will be a response system for Combat Identification. Mode Select (Mode S) and ADS-B Out provides timely aircraft position and flight path prediction to receiver units for Air Traffic Control, Air Defense System and/or aircraft. The IFF Mode 5 upgrade uses an automated system that responds to interrogations to avoid loss of B-1 aircraft through fratricide. Upgrades to ADS-B Out and Mode S are required Federal Aviation Administration (FAA) mandates to field by January 2020 and upgrade to Mode 5 is a Joint Requirements Oversight Council (JROC) mandate to field by September 2020. Failure to meet mandates will result in delayed/denied service within controlled airspace in the United States and Europe. Funds are included to accommodate the FAA mandate for ADS-B and Mode S and JROC mandate for Mode 5 as outlined throughout previous AF and DoD budget exhibits.</p>		
<p>RADIO CRYPTO COMPLIANCE</p> <p>The B-1 Radio Crypto Compliance requirements originated to meet DoD mandates by 1 Jan 2020. If the requirements are not met, B-1 is at risk of losing secure line of sight and beyond line of sight communication (BLOS) with ground and air forces. Without the radio crypto compliance the B-1 will not be able to participate in CONUS/OCONUS military operations. The program replaces the existing radios with Crypto Compliant radios providing BLOS communications. Funds are included to accommodate DoD mandate as outlined throughout previous AF and DoD budget exhibits.</p>		
<p>Multifunctional Information Distribution System (MIDS) – Joint Tactical Radio System (JTRS)</p> <p>The B-1 Multifunctional Information Distribution System (MIDS) – Joint Tactical Radio System (JTRS) replaces the existing MIDS Low Volume Terminal (LVT) 1 Link 16 terminal to meet National Security Agency (NSA) Crypto Modernization (CM) Device Cease Key and Federal Aviation Administration (FAA) Frequency Remap mandates; systems become non-compliant in 2025. MIDS-JTRS resolves all LVT 1 deficiencies and adds substantial combat capability enhancements to Link 16 Enhanced Throughput (LET) and Concurrent Multi-Netting (CMN-4) with Concurrent Retention Receive (CRR). MIDS-JTRS also provides multi-datalink capability, improving situational awareness and allows rapid inflight retargeting in cooperative combat environment. Funds are included to accommodate DoT/DoD approved Frequency Remap and Crypto Modernization Device Cease Key mandates as outlined throughout previous Air Force (AF) and Department of Defense (DoD) budget exhibits.</p>		
<p>Bomb Rack Unit (BRU) 56</p> <p>Bomb Rack Unit (BRU) 56 will solve a safety risk with the legacy BRU-56 ejector rack. The upgrade will alleviate the deficiency within the current ejector rack as well as add increased carriage capability. Prolonged use resulted in a deficiency with the rivets within the linkage of the rack. This deficiency caused failure in one 2003 Class A mishap, one 2010 Class C mishap and multiple ground mishaps. The BRU-56 modification avoids future bomb rack mishaps and the possibility of a catastrophic aircraft loss as well as the loss of life.</p>		
<p>Global Positioning System (GPS) Military-Code (M-Code)</p> <p>This project will integrate a military GPS receiver delivering improved capabilities to allow for accurate and reliable positioning, navigation, and timing for B-1 primary flight instrumentation, navigation, radar, weapon, and communication systems where current receiver performance might be compromised or unavailable. M-Code has a higher-power signal offering better resistance to jamming and interference; advanced security features to prevent unauthorized access or exploitation by adversaries; and improved message formats and signal modulation techniques for faster and more accurate performance.</p>		

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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0101126F / B-1B Squadrons	
<p>INTEGRATED BATTLE STATION (IBS) SIMULATOR DEVELOPMENT</p> <p>B-1B training systems upgrades (both flight and maintenance simulators/trainers) provide required training assets for the aircraft Central Integrated Test System(CITS),Fully Integrated Data Link (FIDL), and Vertical Situational Display Upgrade (VSDU) modernization projects. These upgrades are required to bring the simulators up to the same configuration of the modernized aircraft. The B-1B training system provides the warfighter with a fully integrated, cost effective, high fidelity training capability in flight operations, weapons employment, and maintenance of the B-1B weapon system.</p> <p>FLIGHT TEST AIRCRAFT UPGRADES</p> <p>Upgrades to the B-1B flight test aircraft are included in the modernization projects to keep the test flight systems current. RDT&E funded test jets are currently configured with Engineering and Manufacturing Development (EMD) Line Replaceable Units (LRUs) for CITS, FIDL and VSDU. Replacement of the EMD LRUs is required to bring two flight test aircraft to fleet representative configuration. Maintenance and logistic support from the manufacturer is required until the Air Force supply chain is established. Replacement of the LRUs will ensure maximum supportability, maintainability, and reliability for continued and future flight tests.</p> <p>GAP & INTEGRATION ANALYSIS</p> <p>Additionally, program funds cover engineering/planning studies, related engineering efforts, and auxiliary equipment needed for development projects that have not yet fielded. Funds may be used to resolve emerging safety of flight and diminishing manufacturing source issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Cost includes Program Management Administrative (PMA) costs and initiatives for anticipated weapon system enhancements, including efforts to improve weapon system operational capabilities, safety, supportability, maintainability, reliability, and total ownership cost. All B-1B development projects support planned requirements for unique identification in their production phases.</p> <p>Funding is also required to ensure test asset availability for testing of aircraft RDT&E efforts. This Program element may include necessary civilian pay expenses required to manage, execute, and deliver B-1B weapon system capability.</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 0101126F / B-1B Squadrons						
B. Program Change Summary (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total		
Previous President's Budget		2.245	5.830	17.932	0.000	17.932		
Current President's Budget		2.174	5.830	62.471	0.000	62.471		
Total Adjustments		-0.071	0.000	44.539	0.000	44.539		
• 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		-0.071	0.000					
• Other Adjustments		0.000	0.000	44.539	0.000	44.539		
Change Summary Explanation								
FY2016: Program reduced by \$.071M due to Small Business Innovative Research (SBIR)								
FY2018: Program increased by \$44.539M due to the inclusion of five B-1B Modernization new start programs: Fully Integrated Targeting Pod, Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out, Radio Crypto Compliance, Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) and Bomb Rack Upgrade (BRU)56.								
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Fully Integrated Targeting Pod				-	-	23.283	-	23.283
Description: Fully Integrated Targeting Pod (FITP) Modification permanently integrates the advanced targeting pod (ATP) capability into the B-1B's avionics flight software and replaces the B-1B's Temporary T-1 Beyond Line of Sight (BLOS)/Laptop Controlled Targeting Pod (LCTP) system with increased situational awareness, weapons de-confliction, and intelligence, surveillance and reconnaissance within the Combat Air Forces (CAF). FITP will provide robust combat targeting processing power, computing speed & throughput for aircrew mission planning, a permanent sustainment support structure. It will provide all four crew members access to targeting pod information displayed on digital high definition quality video using the Integrated Battle Station (IBS) multi-function displays (MFDs) and cursor controller. FITP will address the aircrew ergonomic issues caused by the current system configuration, allowing more rapid prosecution of targets with improved integration with Avionics Flight Software (AFS) capabilities. In addition, FITP will provide growth capability for implementation and interaction with follow-on systems to augment targeting pod use. Furthermore, the Fully Integrated Targeting								

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Pod (FITP) removes the need for Interim Contractor Support (ICS) sustainment support structure,resolving DMS issue.						
FY 2018 Base Plans: Conduct acquisition planning, risk assessments, and other pre-EMD activities. Begin Engineering and Manufacturing Development efforts.						
Title: Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out Description: B-1 Identification Friend or Foe (IFF) Mode 5 is the replacement for the B-1 Mark XII IFF Mode 4. Mode 5 will provide secure target identification and will be a response system for Combat Identification. Mode Select (Mode S) and ADS-B Out provides timely aircraft position and flight path prediction to receiver units for Air Traffic Control, Air Defense System and/or aircraft. The IFF Mode 5 upgrade uses an automated system that responds to interrogations. Failure to respond to the interrogations may result in loss of B-1 aircraft or fratricide. Upgrades to ADS-B Out and Mode S are required Federal Aviation Administration (FAA) mandates to field by January 2020 and upgrade to Mode 5 is a Joint Requirements Oversight Council (JROC) mandate to field by September 2020. Failure to meet mandates will result in delayed/denied service within controlled airspace in the United States and Europe. FY 2016 Accomplishments: N/A FY 2017 Plans: N/A FY 2018 Base Plans: Conduct acquisition planning, risk assessments, and other pre-EMD activities. Begin Engineering and Manufacturing Development efforts. FY 2018 OCO Plans: N/A		0.000	0.000	13.546	0.000	13.546
Title: Radio Crypto Compliance Description: The B-1 Radio Crypto Compliance requirements originated to meet DoD mandates by 1 Jan 2020. If the requirements are not met, B-1 is at risk of losing secure line of sight and beyond line of sight communication (BLOS) with ground and air forces. Without the radio crypto compliance the B-1 will not be able		0.000	0.000	5.117	0.000	5.117

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
to participate in CONUS/OCONUS military operations. The program replaces the existing radios with Crypto Compliant radios providing BLOS communications. Funds are included to accommodate DoD mandate as outlined throughout previous AF and DoD budget exhibits. FY 2016 Accomplishments: N/A FY 2017 Plans: N/A FY 2018 Base Plans: Conduct acquisition planning, risk assessments, and other pre-EMD activities. Begin Engineering and Manufacturing Development efforts. FY 2018 OCO Plans: N/A						
Title: Multifunctional Information Distribution System-Joint Tactical Radio System Description: The B-1 Multifunctional Information Distribution System (MIDS) – Joint Tactical Radio System (JTRS) replaces the existing MIDS Low Volume Terminal (LVT) 1 Link 16 terminal to meet National Security Agency (NSA) Crypto Modernization (CM) Device Cease Key and Federal Aviation Administration (FAA) Frequency Remap mandates; systems become non-compliant in 2025. MIDS-JTRS resolves all LVT 1 deficiencies and adds substantial combat capability enhancements to Link 16 Enhanced Throughput (LET) and Concurrent Multi-Netting (CMN-4) with Concurrent Retention Receive (CRR). MIDS-JTRS also provides multi-datalink capability, improving situational awareness and allows rapid inflight retargeting in cooperative combat environment. Funds are included to accommodate DoT/DoD approved Frequency Remap and Crypto Modernization Device Cease Key mandates as outlined throughout previous Air Force (AF) and Department of Defense (DoD) budget exhibits. FY 2016 Accomplishments: N/A FY 2017 Plans: N/A FY 2018 Base Plans:		0.000	0.000	8.241	0.000	8.241

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Conduct acquisition planning, risk assessments, and other pre-EMD activities. Begin Engineering and Manufacturing Development efforts.						
FY 2018 OCO Plans: N/A						
Title: Bomb Rack Unit - 56		0.000	0.000	5.898	0.000	5.898
Description: Bomb Rack Unit (BRU)56 will solve a safety risk with the legacy BRU-56 ejector rack. The upgrade will alleviate the deficiency within the current ejector rack as well as add increased carriage capability. Prolonged use resulted in a deficiency with the rivets within the linkage of the rack. This caused failure in one 2003 Class A mishap, one 2010 Class C mishap and multiple ground mishaps. The BRU-56 modification avoids the bomb rack mishaps and the possibility of a catastrophic aircraft loss as well as the loss of life.						
FY 2016 Accomplishments: N/A						
FY 2017 Plans: N/A						
FY 2018 Base Plans: Conduct acquisition planning, risk assessments, and other pre-EMD activities. Begin Engineering and Manufacturing Development efforts.						
FY 2018 OCO Plans: N/A						
Title: Global Positioning System (GPS) Military-Code (M-Code)		0.000	3.038	0.000	0.000	0.000
Description: This project will integrate a military GPS receiver delivering improved capabilities to allow for accurate and reliable positioning, navigation, and timing for B-1 primary flight instrumentation, navigation, radar, weapon, and communication systems where current receiver performance might be compromised or unavailable. M-Code has a higher-power signal offering better resistance to jamming and interference; advanced security features to prevent unauthorized access or exploitation by adversaries; and improved message formats and signal modulation techniques for faster and more accurate performance.						
FY 2016 Accomplishments:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
N/A						
FY 2017 Plans: Conduct acquisition planning, risk assessments, and other pre-EMD activities.						
FY 2018 Base Plans: N/A						
FY 2018 OCO Plans: N/A						
Title: B-1B IBS Simulator Development		0.151	0.000	0.000	0.000	0.000
Description: B-1B Integrated Battle Station (IBS) simulator development is the upgrade to existing training systems (both flight and maintenance) to simulate IBS configuration. IBS is the combined production phase of Central Integrated Test Systems (CITS), Fully Integrated Data Link (FIDL), and Vertical Situation Display Upgrade (VSDU) development efforts.						
FY 2016 Accomplishments: Contract Closeout activities concluded						
FY 2017 Plans: N/A						
FY 2018 Base Plans: N/A						
FY 2018 OCO Plans: N/A						
Title: B-1B Flight Test Upgrades		1.234	0.000	0.000	0.000	0.000
Description: B-1B Flight Test Upgrades modifies the two flight test aircraft at Edwards AFB to the production IBS configuration; the EMD Line Replacement Units (LRUs) that are currently on the aircraft will be removed and replaced with production units.						
FY 2016 Accomplishments: Completed installation of CITS, FIDL and VSDU Line Replaceable Units.						
FY 2017 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
N/A						
FY 2018 Base Plans: N/A						
FY 2018 OCO Plans: N/A						
Title: Gap & Integration Analysis		0.789	2.792	6.386	0.000	6.386
Description: Funds will be used for studies to facilitate new capabilities and enhancements to improve operational aircraft safety, supportability, maintainability, reliability and total ownership cost. Conduct engineering studies that will involve a gap and integration analysis to include but not limited for Small Diameter Bomb (SDB) II Integration with Universal Armament Interface (UAI), Guided Bomb Unit (GBU)-56 Integration, Miniature Air Launch Decoy (MALD) Integration (All variants) and Helmet Mounted Cueing System.						
FY 2016 Accomplishments: Conducted engineering studies for a gap and integration analysis for upgrade of the current Global Positioning System/Inertial Navigation System (INS) with the required new Military M-Code standard.						
FY 2017 Plans: Conducted engineering studies for a gap and integration analysis for developmental projects that have not yet fielded.						
FY 2018 Base Plans: Engineering studies will be conducted to include a gap and integration analysis to include but not limited to Small Diameter Bomb (SDB) II Integration with Universal Armament Interface (UAI), Guided Bomb Unit (GBU)-56 Integration, Miniature Air Launch Decoy (MALD) Integration (all variants) and Helmut Mounted Cueing System.						
FY 2018 OCO Plans: N/A						
Accomplishments/Planned Programs Subtotals		2.174	5.830	62.471	0.000	62.471

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D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• APAF: BA05: Line Item # B01B00: Training Support to Units, Mods PE 0809731F	0.434	0.438	0.448	0.000	0.448	0.454	0.462	0.471	0.480	0.00	3.185
• APAF: BA05: Line Item # B01B00: Bomber Tactical Data Link Mods PE 0207446F	1.011	1.380	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	5.778
• APAF: BA05: Line Item # B01B00: B-1B Squadrons, Mods	112.674	114.501	155.634	0.000	155.634	102.780	93.202	122.842	85.889	0.00	732.077
• APAF: BA05: Line Item # B01B00 S...: B-1B Squadrons, Spares	16.543	7.429	4.506	3.300	7.806	0.000	2.532	0.724	0.863	0.00	34.060
Remarks											
(U) Program Element 0809731F, Training Support to Units, Mods											
(U) Program Element 0207446F, Bomber Tactical Data Link, Mods											
E. Acquisition Strategy											
Fully Integrated Targeting Pod acquisition strategy will be a Sole Source Cost Plus Fixed Fee with a two (2) year EMD effort and a Sole Source Firm Fixed Fee (FFP) two (2) year Production and Installation effort.											
Mode5/S ADS-B Out, Radio Crypto Compliance and MIDS JTRS will be a Sole Source Cost Plus Fixed Fee (CPFF) two (2) year EMD effort and a competitive Firm Fixed Fee (FFP) three (3) year Production and Installation effort.											
The acquisition strategy for the Bomb Rack Unit (BRU-56) will be competitive contract with a three (3) year EMD effort and a three year (3) Production and Installation effort. Contract type to be determined.											
The Global Positioning (GPS) System Military Code (M-Code) acquisition strategy will consist of three years EMD and three years production. The EMD portion is anticipated to consist of two Cost Plus Fixed Fee (CPFF) sole source contracts, one for the integration of the GPS receiver card into the Line Replaceable Units (LRUs) and one for the integration of the LRU into the Aircraft.											
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: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0101126F / B-1B Squadrons				Project (Number/Name) 675344 / B-1B Modernization					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Fully Integrated Targeting Bomb	SS/CPFF	Boeing : OKC, OK	-	0.000		0.000		22.786	Apr 2018	0.000		22.786	Continuing	Continuing	-
Mode 5/S Automatic Dependent Surveillance Broadcast (ADS-B) Out	SS/CPFF	Boeing : OKC, OK	-	0.000		0.000		12.385	Feb 2018	0.000		12.385	Continuing	Continuing	-
Radio Crypto Compliance	SS/CPFF	Boeing : OKC, OK	-	0.000		0.000		4.576	Feb 2018	0.000		4.576	Continuing	Continuing	-
Multifunction Information Distribution System	SS/CPFF	Boeing : OKC, OK	-	0.000		0.000		5.118	Feb 2018	0.000		5.118	Continuing	Continuing	-
Bomb Rack Unit - (BRU) 56	C/TBD	TBD : TBD	-	0.000		0.000		5.542	Jun 2018	0.000		5.542	Continuing	Continuing	-
B-1B Global Positioning System (GPS) Military Code (M-Code)	SS/CPFF	Boeing/Honeywell : OKC, OK	-	0.000		1.900	Mar 2017	0.000		0.000		0.000	Continuing	Continuing	-
B-1B IBS Simulator Development (CITS FIDL VSDU)	C/FPIF	AAI : Goose Creek, SC	-	0.151	Dec 2016	0.000		0.000		0.000		0.000	0.000	0.151	-
B-1B Flight Test Aircraft Upgrades	SS/CPFF	Boeing : OKC, OK	-	1.234	Aug 2016	0.000		0.000		0.000		0.000	0.000	1.234	-
Subtotal			-	1.385		1.900		50.407		0.000		50.407	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Gap And Integration Analysis	Various	TBD : TBD	-	0.689	Mar 2016	2.767	Jun 2017	6.361	Apr 2018	0.000		6.361	Continuing	Continuing	-
A&AS	C/TBD	TBD : TBD	-	0.000		0.000		2.709	Jan 2018	0.000		2.709	Continuing	Continuing	-
Trainers	TBD	TBD : TBD	-	0.000		0.000		0.555	Apr 2018	0.000		0.555	Continuing	Continuing	-
Subtotal			-	0.689		2.767		9.625		0.000		9.625	-	-	-

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Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
AFFTC	PO	Edward AFB : CA	-	0.000		1.138	Dec 2017	1.968	Dec 2018	0.000		1.968	Continuing	Continuing	-
Subtotal			-	0.000		1.138		1.968		0.000		1.968	-	-	-

Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	Various : Various	-	0.100	Jan 2016	0.025	Mar 2017	0.471	Jan 2018	0.000		0.471	Continuing	Continuing	-
Subtotal			-	0.100		0.025		0.471		0.000		0.471	-	-	-

	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.174		5.830		62.471		0.000		62.471	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force **Date:** May 2017

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101126F / B-1B Squadrons	Project (Number/Name) 675344 / B-1B Modernization
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	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
Simulator Upgrades for CITS/FIDL/VSDU Contract Activities																												
Flight Test Aircraft Upgrade Deliveries																												
Flight Test Aircraft Upgrade Installs																												
Gap and Integration Analysis Contract Award (Mar 16)																												
Gap and Integration Analysis Contract Award (Jun 18)																												
Fully Integrated Targeting Pod Contract Award (Apr 18)																												
Fully Integrated Targeting Pod EMD Activities																												
IFF Mode 5/S ADS-B Out Contract Award (Feb 18)																												
IFF Mode 5/S ADS-B Out EMD Activities																												
Radio Crypto Compliance - Contract Award (Feb 18)																												
Radio Crypto Compliance - EMD Activities																												
MIDS JTRS - Milestone B Decision and Contract Award (Feb 18)																												
MIDS JTRS - EMD Activities																												
BRU-56 Contract Award																												
BRU-56 - EMD Activities																												

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101126F / <i>B-1B Squadrons</i>	Project (Number/Name) 675344 / <i>B-1B Modernization</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Simulator Upgrades for CITS/FIDL/VSDU Contract Activities	1	2016	2	2017
Flight Test Aircraft Upgrade Deliveries	2	2016	4	2016
Flight Test Aircraft Upgrade Installs	4	2016	4	2017
Gap and Integration Analysis Contract Award (Mar 16)	2	2016	2	2016
Gap and Integration Analysis Contract Award (Jun 18)	3	2018	3	2018
Fully Integrated Targeting Pod Contract Award (Apr 18)	3	2018	3	2018
Fully Integrated Targeting Pod EMD Activities	3	2018	3	2020
IFF Mode 5/S ADS-B Out Contract Award (Feb 18)	2	2018	2	2018
IFF Mode 5/S ADS-B Out EMD Activities	2	2018	2	2020
Radio Crypto Compliance - Contract Award (Feb 18)	3	2018	3	2018
Radio Crypto Compliance - EMD Activities	3	2018	3	2020
MIDS JTRS - Milestone B Decision and Contract Award (Feb 18)	2	2018	2	2018
MIDS JTRS - EMD Activities	2	2018	4	2019
BRU-56 Contract Award	3	2018	3	2018
BRU-56 - EMD Activities	3	2018	2	2021