Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0101113F: *B-52 SQUADRONS*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	101.898	146.096	133.261	-	133.261	78.369	74.047	69.595	45.645	Continuing	Continuing
675039: *B-52 Modernization*	101.898	146.096	133.261	-	133.261	78.369	74.047	69.595	45.645	Continuing	Continuing

Note

The program funding includes reductions for Overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total $1.378M in FY12.

A. Mission Description and Budget Item Justification

B-52 modernization is a comprehensive program to ensure B-52 viability to perform current and future wartime missions to include datalinks, navigation, sensors, weapons, and electronic warfare (EW) and training capabilities. B-52 modernization (initiated in FY 2005) integrates and adds both tactical and global datalink communications for real time command and control, targeting, and intelligence. It upgrades antiquated air traffic management (ATM) systems with those supported by three key functions using satellite technology: Communications, Navigation and Surveillance (CNS). Modernization upgrades training devices to support aircrew and maintenance training with the latest B-52 capability. In addition, modernization improves conventional warfare capability with additional MIL-STD-1760 smart weapons and improved weapons carriage and fully integrates advanced targeting pods with the offensive avionics system. B-52 modernization upgrades or replaces legacy defensive EW systems to include the radar warning receiver, jammers, chaff and flare dispensers and situational awareness displays as well as integration of offensive EW such as the Miniature Air-Launched Decoy (MALD) and MALD-Jammer (MALD-J). Lastly, B-52 Modernization replaces the current aging strategic radar capability with a state-of-the-art, non-developmental radar.

CONECT

The B-52 Combat Network Communications Technology (CONECT) acquisition program will support nuclear and conventional operations by upgrading the B-52 fleet with tactical datalink and voice communications capabilities along with improved threat and situational awareness to support participation in network centric operations. The CONECT upgrade includes new multi-functional color displays (MFCDs) and a digital interphone system, which will survive and function through the nuclear environment to enhance crew interaction and situational awareness. To enable net centric operations, the CONECT upgrade integrates: on-board client/ server architecture supporting distributed processing with independent control functions; UHF Beyond Line-Of-Sight (BLOS) Joint Range Extension (JRE) capability via ARC-210 Warrior radio to exchange J-Series messaging within theater; Intelligence Broadcast Receiver (IBR); limited Internet Protocol (IP)-based UHF BLOS link supporting e-mail and file transfers; and Improved Data Modem (IDM)-based digital Variable Message Format (VMF) datalink to significantly enhance close air support (CAS) missions. This integrated suite will provide the B-52 fleet with a machine-to-machine data transfer capability supporting aircraft re-tasking and re-targeting of Conventional Air Launched Cruise Missile (CALCM), Joint Air-to-Surface Standoff Missile/JASSM-Extended Range (JASSM/JASSM-ER), and other J-series weapons across the range of B-52 military operations and missions.

B-52 EHF

The B-52 Extremely High Frequency (EHF) program will integrate and install the B-52 fleet with equipment to provide secure, survivable two-way EHF SATCOM link for Emergency Action Messages (EAMs) and report-backs to meet Joint Chiefs of Staff (JCS) nuclear protected Information Exchange Requirements (IERs).

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The B-52 EHF will integrate the Family of Advanced Beyond-Line-of-Sight (BLOS) Terminal (FAB-T) Airborne Wideband Terminal system developed and procured by Space and Missile Center (SMC) through PE 0303601F. The FAB-T system consists of the Operator Interface Group, Modem Processor Group, and Antenna Group. The B-52 EHF will also integrate a high data rate BLOS communication link supporting IP-based Global Information Grid (GIG) interoperability into the B-52 architecture. The B-52 EHF program is planned to be accomplished in two increments. Increment 1 preserves the existing B-52 capability to receive EAMs and report-backs via SATCOM. It includes the up-front program planning and risk reduction trade studies on items such as radome mounting, Environmental Control System (ECS) capabilities, antenna boresighting, etc. to get all program requirements through System Requirements Review (SRR). Increment 1 will also include additional risk reduction studies, development of integration and installation kits for the FAB-T equipment for strategic connectivity, as well as implement trade study solutions. In addition, the ECS will need to be upgraded or replaced to meet equipment/crew comfort cooling requirements. Finally, Increment 2 will provide GIG and net-ready capability as well as full integration with other-B-52 systems.

Trainers and upgrades for CONECT & EHF
In order to maintain currency with the latest aircraft configuration, the CONECT and EHF programs will update existing trainers or use computer-based training to add CONECT and EHF functionality to meet user-training requirements and establish a system integration laboratory (SIL) for updates of the Weapon System Trainers (WST).

ATP Functionality
The B-52 Modernization program fully integrates Advanced Targeting Pods (ATP) by linking pod control, display and target geo-location with the B-52 Offensive Avionics System (OAS). The B-52 ATP effort continues the ATP (Sniper or LITENING) integration effort that began in FY07 with GWOT funding. The ATP effort develops aircraft software updates to add and incorporate advanced pod functionality into the B-52, as well as retain currency/certification/connectivity to new/upgraded variants of ATPs. In addition, this effort upgrades the software functions of the new Alternate Mission Equipment (AME) (Multi Function Display and the Integrated Hand Controller), developed and procured under the B-52 Advanced Weapons Integration (AWI) modification, and enables the B-52 to utilize a LITENING or Sniper pod. This effort provides hardware and software upgrades to the existing aircrew/maintenance trainers and the SIL.

Weapons Improvements
B-52 modernization also includes improvement of conventional warfare capability. This effort provides development and testing to rapidly integrate weapons with a large array of properties but not limited to: stealth, hard target penetration, standoff, adverse weather, precision strike, loiter, decoy, defense suppression, post-release/ launch re-target capability, area denial, mobile targets, and multiple simultaneous attack. These capabilities are provided through the integration of advanced weapons both internally (MIL-STD-1760 data bus in the weapons bay) and externally.

1760 IWB Upgrade
B-52 Modernization provides for expansion of B-52H conventional munitions carriage capability through modification of weapons carriage equipment and aircraft software IAW MIL-STD-1760 (hereafter, "1760"). The 1760 Internal Weapons Bay (1760 IWB) upgrade (also known as 1760 In the Bay) program modifies aircraft bomb bay 1760 connection locations, aircraft software, and the Common Strategic Rotary Launchers (CSRL) to carry 1760-based munitions in the B-52's internal weapons bay. It follows a 2005 flight demonstration in which a B-52 successfully dropped eight Joint Direct Attack Munitions (JDAMs) from a modified CSRL using a prototype Integrated Weapons Interface Unit (IWIU). Following the demonstration, the IWIU went into production to sustain external wing pylon 1760 requirements

under the Advanced Weapons Integration (AWI) program. Congressional adds in FY 2006 and 2007 provided the software design work and risk reduction activities for an internal 1760 capability. The 1760 IWB program uses the same external pylon IWIU to control the smart weapons on the modified CSRL. Modified CSRLs become "Conventional Rotary Launchers (CRL) and lose their current nuclear capability; therefore, only those launchers not required for nuclear missions will modified. However, nuclear capability can be restored to the CRL upon integration of 1760 Type II nuclear munitions. The program also modifies the aircraft's weapon interface Stores Management Overlay (SMO) software. The SMO for each weapon family will be upgraded to expand its capability from external pylon-only carriage to include carriage on the CRL in the weapons bay. 1760 IWB program includes hardware and software upgrades to aircrew/maintenance training devices, weapons carriage and release systems test equipment, mission planning development including implementation of the Joint Mission Planning System (JMPS), and the B-52 SIL and Avionics Integration Support Facility (AISF). The program is segregated into increments and subordinated phases. The program's threshold capability, Increment 1, Phase 1 (Increment 1.1) modifies the JDAM SMO for internal carriage of eight JDAMs on each CRL. Applicable JDAM variants include GBU-31 (2000 lb.), GBU-38 (500 lb.), and GBU-54 (500 lb. Laser JDAM). Increment 1, Phase 2 (Increment 1.2) adds 8-carriage capability of Joint Air to Surface Standoff Missile (JASSM), JASSM-Extended Range (JASSM-ER), Miniature Air Launched Decoy (MALD), and MALD-Jammer (MALD-J). Future internal capabilities appear in Increment 2 and include (1) all family variants of Wind Corrected Munitions Dispenser (WCMD) and Laser Guided Bombs (LGB); (2) Countermine System; (3) expansion of CRL carriage capability (quantity and mixed loads); and (4) additional weapon variants, such as, GBU-56 (2000 lb. Laser JDAM). Program also includes development of the B-52 baseline mission planning software for the Joint Mission Planning System (JMPS).

CNS/ATM
Capabilities identified under Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) activities will include Frequency Management (FM) Immunity, digital communications (voice and data), improved navigation accuracy such as Required Navigation Performance (RNP) or Global Positioning System (GPS) enhancements, Reduced Vertical Separation Minimum (RVSM), Traffic Alert and Collision Avoidance System (TCAS), enhanced situational awareness such as Mode S/Mode 5 Identify Friend or Foe (IFF), Communications Management Unit, HF Data Link, 8.33MHz Very High Frequency (VHF), Auto Dependent Surveillance (both address and broadcast), and any follow-on activities to associated components/systems resulting from modifications to CNS/ATM systems.

Mode S/5 IFF
Mode S/5 Identification Friend or Foe (IFF) is part of the CNS/ATM effort and will develop and integrate modern technology into the B-52 to enable it to operate in the evolving air traffic environment. This effort is driven by the International Civil Aviation Organization (ICAO) and Federal Aviation Administration (FAA) mandates to comply with performance standards to allow the B-52 to operate safely in controlled airspaces. This program will also yield significant savings through more efficient flight routes and altitudes. The Mode S/5 portion includes upgrade of the current APX-64 with the APX-119 transponder capable of Mode S/5 and will leverage architecture to include simultaneous integration of Automatic Dependent Surveillance - Broadcast (ADS-B) capability required for operations in European airspace by 2015 and CONUS airspace by 2020.

Anti-skid Replacement
The B-52 Anti-Skid system is used to maintain control of aircraft during landings and taxi operations. The B-52 anti-skid system prevents aircraft skidding by sensing the exact amount of brake pressure needed for safe braking under all runway conditions without tire damage. Previous B-52 Anti-Skid supportability analysis, completed in 2006 by General Atomics, indicated a supportability end date of 2011, based on parts obsolescence, a lack of test equipment and a lack of repair personnel. Parts obsolescence continues to be a major supportability factor. However, since the previous analysis, test equipment and new depot maintenance

procedures to refurbish previously failed Anti-Skid Detectors have been put in place in order to provide spares until 2014/2015 when the replacement will be available. The Anti-Skid Replacement program develops and installs a new system. This effort includes an upgrade of the maintenance trainers.

SR2
The B-52 Strategic Radar Replacement (SR2) program replaces the current AN/APQ-166 Strategic Radar fielded in the 1960s and then upgraded in the 1970s and 1980s. Although modified several times, it has never been totally replaced and several parts of the system remain from the original design, such as the antenna reflector, feed, and casting. The legacy APQ-166 radar is becoming unsupportable with increasing signs of performance degradation and multiple DMS and materiel shortage issues. The SR2 program is a radar replacement program that will take advantage of the advanced capabilities of modern non-developmental radars, maximizing commonality with other platforms. The B-52 SR2 Program will integrate, test, and field a modern radar system, which supports all weather targeting and navigation to support the requirements of keeping the B-52 combat capable for its extended service life. Additionally, the remaining two legacy MFCDs will be replaced.

Engineering Studies & Analysis and Test & Evaluation
B-52 modernization funds test activities at the Air Force Flight Test Center (AFFTC), engineering and planning studies for potential future weapon system enhancements (weapons, sensors, avionics and EW), upgrades to the B-52 SIL, AISF and WSTs, and weapon system operational/safety, supportability, reliability, and Total Ownership Cost (TOC) improvements.

B-52 TDL
The B-52 Tactical Data Link (TDL) will integrate Line-of-Sight (LoS) TDL, LINK-16 or new technologies alternative waveforms for inclusion in the CONECT architecture. Current CONECT Capabilities Description Document identifies mission area capability gaps that support rationale for TDL communications. Full integration of TDL on the B-52 involves significant effort to design, test, and certify the system for operational use. This program will develop DoD architecture products with an Information Support Plan (ISP) to provide mission area justification for TDL integration, perform an Analysis-of-Alternatives (AoA) to determine terminal selection and transport/ waveform requirements to meet operational needs, develop candidate requirements/architecture definition utilizing the B-52 CONECT architecture as the baseline for integration, perform aircraft installation trade studies to identify potential issues with integration (such as, size, weight, power, cooling, and antenna location/ performance), and demonstrate capabilities using chosen AoA option.

Reconstitution of B-52 Nuclear Capability Study
The pivotal role the B-52 capabilities play in the AF Nuclear Mission require a study to be completed to ensure the platform maintains an enhanced level of readiness. The study will evaluate the nuclear hardening of the Integrated Weapons Interface Unit (IWIU). The study will look at the conceptual development of a MIL-STD-1760 Nuclear Weapons interface. The hardening of the IWIU will ensure the survivability of existing conventional J-series weapons as well as provide for future nuclear 1760 capable weapons both in the bay and on the wing launch platforms.

SEER Modification
The System Effectiveness and Evolutionary Requirements (SEER) modifications provide technology concurrency through preplanned product improvement initiatives to improve reliability, maintainability, and/or improved system performance issues on the B-52 aircraft and trainers. These funds ensure that the B-52 weapons system capitalizes upon established technological improvements and remains viable through 2040. Efforts may include implementation of new system architectures.

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B-52 Structures Modification
These modifications provide improvements to the integrity of the structures to reduce corrosion repair costs, reduce maintenance workload, and enhance safety. Examples would include minor service life extension efforts, de-modifying the aircraft of obsolete, inactivated systems, and weight reduction initiatives.

ADDITIONAL EFFORTS
B-52 modernization funds additional efforts that stem from the operation and maintenance of a 48-plus-year-old aircraft, such as parts obsolescence and DMS. Examples include, but are not limited to upgrades to outdated avionics computers, mission planning interfaces to JMPS, Air Force Mission Support System (AFMSS), and other mission planning systems (JMPS), upgrades to the EW suite, and studies and analysis. All B-52 development programs support planned requirements for unique identification in their production phases.

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.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	102.330	146.096	140.915	-	140.915
Current President's Budget	101.898	146.096	133.261	-	133.261
Total Adjustments	-0.432	-	-7.654	-	-7.654
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.432	-	-7.654	-	-7.654

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2010	FY 2011
Project: 675039: *B-52 Modernization*		
Congressional Add: *Tactical Data Link Congressional Add*	5.949	-
Congressional Add: *Nuclear Reconstitution Study*	2.389	-
Congressional Add Subtotals for Project: 675039	8.338	-
Congressional Add Totals for all Projects	8.338	-

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Change Summary Explanation

FY12 RDT&E changes include the following adjustments: +$15.8M due to CONECT slip, +$11.4M for EHF for additional development, -$23.3M early-to-need SR2, -$11.0M for early-to-need 1760 IWB, and -$.6M for higher AF priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675039: *B-52 Modernization*	101.898	146.096	133.261	-	133.261	78.369	74.047	69.595	45.645	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

B-52 modernization is a comprehensive program to ensure B-52 viability to perform current and future wartime missions to include datalinks, navigation, sensors, weapons, and electronic warfare (EW) and training capabilities. B-52 modernization (initiated in FY 2005) integrates and adds both tactical and global datalink communications for real time command and control, targeting, and intelligence. It upgrades antiquated air traffic management (ATM) systems with those supported by three key functions using satellite technology: Communications, Navigation and Surveillance (CNS). Modernization upgrades training devices to support aircrew and maintenance training with the latest B-52 capability. In addition, modernization improves conventional warfare capability with additional MIL-STD-1760 smart weapons and improved weapons carriage and fully integrates advanced targeting pods with the offensive avionics system. B-52 modernization upgrades or replaces legacy defensive EW systems to include the radar warning receiver, jammers, chaff and flare dispensers and situational awareness displays as well as integration of offensive EW such as the Miniature Air-Launched Decoy (MALD) and MALD-Jammer (MALD-J). Lastly, B-52 Modernization replaces the current aging strategic radar capability with a state-of-the-art, non-developmental radar.

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The B-52 Combat Network Communications Technology (CONECT) acquisition program will support nuclear and conventional operations by upgrading the B-52 fleet with tactical datalink and voice communications capabilities along with improved threat and situational awareness to support participation in network centric operations. The CONECT upgrade includes new multi-functional color displays (MFCDs) and a digital interphone system, which will survive and function through the nuclear environment to enhance crew interaction and situational awareness. To enable net centric operations, the CONECT upgrade integrates: on-board client/ server architecture supporting distributed processing with independent control functions; UHF Beyond Line-Of-Sight (BLOS) Joint Range Extension (JRE) capability via ARC-210 Warrior radio to exchange J-Series messaging within theater; Intelligence Broadcast Receiver (IBR); limited Internet Protocol (IP)-based UHF BLOS link supporting e-mail and file transfers; and Improved Data Modem (IDM)-based digital Variable Message Format (VMF) datalink to significantly enhance close air support (CAS) missions. This integrated suite will provide the B-52 fleet with a machine-to-machine data transfer capability supporting aircraft re-tasking and re-targeting of Conventional Air Launched Cruise Missile (CALCM), Joint Air-to-Surface Standoff Missile/JASSM-Extended Range (JASSM/JASSM-ER), and other J-series weapons across the range of B-52 military operations and missions.

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backs via SATCOM. It includes the up-front program planning and risk reduction trade studies on items such as radome mounting, Environmental Control System (ECS) capabilities, antenna boresighting, etc. to get all program requirements through System Requirements Review (SRR). Increment 1 will also include additional risk reduction studies, development of integration and installation kits for the FAB-T equipment for strategic connectivity, as well as implement trade study solutions. In addition, the ECS will need to be upgraded or replaced to meet equipment/crew comfort cooling requirements. Finally, Increment 2 will provide GIG and net-ready capability as well as full integration with other-B-52 systems.

Trainers and upgrades for CONECT & EHF
In order to maintain currency with the latest aircraft configuration, the CONECT and EHF programs will update existing trainers or use computer-based training to add CONECT and EHF functionality to meet user-training requirements and establish a system integration laboratory (SIL) for updates of the Weapon System Trainers (WST).

ATP Functionality
The B-52 Modernization program fully integrates Advanced Targeting Pods (ATP) by linking pod control, display and target geo-location with the B-52 Offensive Avionics System (OAS). The B-52 ATP effort continues the ATP (Sniper or LITENING) integration effort that began in FY07 with GWOT funding. The ATP effort develops aircraft software updates to add and incorporate advanced pod functionality into the B-52, as well as retain currency/certification/connectivity to new/upgraded variants of ATPs. In addition, this effort upgrades the software functions of the new Alternate Mission Equipment (AME) (Multi Function Display and the Integrated Hand Controller), developed and procured under the B-52 Advanced Weapons Integration (AWI) modification, and enables the B-52 to utilize a LITENING or Sniper pod. This effort provides hardware and software upgrades to the existing aircrew/maintenance trainers and the SIL.

Weapons Improvements
B-52 modernization also includes improvement of conventional warfare capability. This effort provides development and testing to rapidly integrate weapons with a large array of properties but not limited to: stealth, hard target penetration, standoff, adverse weather, precision strike, loiter, decoy, defense suppression, post-release/ launch re-target capability, area denial, mobile targets, and multiple simultaneous attack. These capabilities are provided through the integration of advanced weapons both internally (MIL-STD-1760 data bus in the weapons bay) and externally.

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Stores Management Overlay (SMO) software. The SMO for each weapon family will be upgraded to expand its capability from external pylon-only carriage to include carriage on the CRL in the weapons bay. 1760 IWB program includes hardware and software upgrades to aircrew/maintenance training devices, weapons carriage and release systems test equipment, mission planning development including implementation of the Joint Mission Planning System (JMPS), and the B-52 SIL and Avionics Integration Support Facility (AISF). The program is segregated into increments and subordinated phases. The program's threshold capability, Increment 1, Phase 1 (Increment 1.1) modifies the JDAM SMO for internal carriage of eight JDAMs on each CRL. Applicable JDAM variants include GBU-31 (2000 lb.), GBU-38 (500 lb.), and GBU-54 (500 lb. Laser JDAM). Increment 1, Phase 2 (Increment 1.2) adds 8-carriage capability of Joint Air to Surface Standoff Missile (JASSM), JASSM-Extended Range (JASSM-ER), Miniature Air Launched Decoy (MALD), and MALD-Jammer (MALD-J). Future internal capabilities appear in Increment 2 and include (1) all family variants of Wind Corrected Munitions Dispenser (WCMD) and Laser Guided Bombs (LGB); (2) Countermine System; (3) expansion of CRL carriage capability (quantity and mixed loads); and (4) additional weapon variants, such as, GBU-56 (2000 lb. Laser JDAM). Program also includes development of the B-52 baseline mission planning software for the Joint Mission Planning System (JMPS).

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Capabilities identified under Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) activities will include Frequency Management (FM) Immunity, digital communications (voice and data), improved navigation accuracy such as Required Navigation Performance (RNP) or Global Positioning System (GPS) enhancements, Reduced Vertical Separation Minimum (RVSM), Traffic Alert and Collision Avoidance System (TCAS), enhanced situational awareness such as Mode S/Mode 5 Identify Friend or Foe (IFF), Communications Management Unit, HF Data Link, 8.33MHz Very High Frequency (VHF), Auto Dependent Surveillance (both address and broadcast), and any follow-on activities to associated components/systems resulting from modifications to CNS/ATM systems.

Mode S/5 IFF
Mode S/5 Identification Friend or Foe (IFF) is part of the CNS/ATM effort and will develop and integrate modern technology into the B-52 to enable it to operate in the evolving air traffic environment. This effort is driven by the International Civil Aviation Organization (ICAO) and Federal Aviation Administration (FAA) mandates to comply with performance standards to allow the B-52 to operate safely in controlled airspaces. This program will also yield significant savings through more efficient flight routes and altitudes. The Mode S/5 portion includes upgrade of the current APX-64 with the APX-119 transponder capable of Mode S/5 and will leverage architecture to include simultaneous integration of Automatic Dependent Surveillance - Broadcast (ADS-B) capability required for operations in European airspace by 2015 and CONUS airspace by 2020.

Anti-Skid Replacement
The B-52 Anti-Skid system is used to maintain control of aircraft during landings and taxi operations. The B-52 Anti-Skid system prevents aircraft skidding by sensing the exact amount of brake pressure needed for safe braking under all runway conditions without tire damage. Previous B-52 Anti-Skid supportability analysis, completed in 2006 by General Atomics, indicated a supportability end date of 2011, based on parts obsolescence, a lack of test equipment and a lack of repair personnel. Parts obsolescence continues to be a major supportability factor. However, since the previous analysis, test equipment and new depot maintenance procedures to refurbish previously failed Anti-Skid Detectors have been put in place in order to provide spares until 2014/2015 when the replacement will be available. The Anti-Skid Replacement program develops and installs a new system. This effort includes an upgrade of the maintenance trainers.

SR2

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
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The B-52 Strategic Radar Replacement (SR2) program replaces the current AN/APQ-166 Strategic Radar fielded in the 1960s and then upgraded in the 1970s and 1980s. Although modified several times, it has never been totally replaced and several parts of the system remain from the original design, such as the antenna reflector, feed, and casting. The legacy APQ-166 radar is becoming unsupportable with increasing signs of performance degradation and multiple DMS and materiel shortage issues. The SR2 program is a radar replacement program that will take advantage of the advanced capabilities of modern non-developmental radars, maximizing commonality with other platforms. The B-52 SR2 Program will integrate, test, and field a modern radar system, which supports all weather targeting and navigation to support the requirements of keeping the B-52 combat capable for its extended service life. Additionally, the remaining two legacy MFCDs will be replaced.

Engineering Studies & Analysis and Test & Evaluation
B-52 modernization funds test activities at the Air Force Flight Test Center (AFFTC), engineering and planning studies for potential future weapon system enhancements (weapons, sensors, avionics and EW), upgrades to the B-52 SIL, AISF and WSTs, and weapon system operational/safety, supportability, reliability, and Total Ownership Cost (TOC) improvements.

B-52 TDL
The B-52 Tactical Data Link (TDL) will integrate Line-of-Sight (LoS) TDL, Link-16 or new technologies alternative waveforms for inclusion in the CONECT architecture. Current CONECT Capabilities Description Document identifies mission area capability gaps that support rationale for TDL communications. Full integration of TDL on the B-52 involves significant effort to design, test, and certify the system for operational use. This program will develop DoD architecture products with an Information Support Plan (ISP) to provide mission area justification for TDL integration, perform an Analysis-of-Alternatives (AoA) to determine terminal selection and transport/ waveform requirements to meet operational needs, develop candidate requirements/architecture definition utilizing the B-52 CONECT architecture as the baseline for integration, perform aircraft installation trade studies to identify potential issues with integration (such as, size, weight, power, cooling, and antenna location/ performance), and demonstrate capabilities using chosen AoA option.

Reconstitution of B-52 Nuclear Capability Study
The pivotal role the B-52 capabilities play in the AF Nuclear Mission require a study to be completed to ensure the platform maintains an enhanced level of readiness. The study will evaluate the nuclear hardening of the Integrated Weapons Interface Unit (IWIU). The study will look at the conceptual development of a MIL-STD-1760 Nuclear Weapons interface. The hardening of the IWIU will ensure the survivability of existing conventional J-series weapons as well as provide for future nuclear 1760 capable weapons both in the bay and on the wing launch platforms.

SEER Modification
The System Effectiveness and Evolutionary Requirements (SEER) modifications provide technology concurrency through preplanned product improvement initiatives to improve reliability, maintainability, and/or improved system performance issues on the B-52 aircraft and trainers. These funds ensure that the B-52 weapons system capitalizes upon established technological improvements and remains viable through 2040. Efforts may include implementation of new system architectures.

B-52 Structures Modification
These modifications provide improvements to the integrity of the structures to reduce corrosion repair costs, reduce maintenance workload, and enhance safety. Examples would include minor service life extension efforts, de-modifying the aircraft of obsolete, inactivated systems, and weight reduction initiatives.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
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ADDITIONAL EFFORTS
B-52 modernization funds additional efforts that stem from the operation and maintenance of a 48-plus-year-old aircraft, such as parts obsolescence and DMS. Examples include, but are not limited to upgrades to outdated avionics computers, mission planning interfaces to JMPS, Air Force Mission Support System (AFMSS), and other mission planning systems (JMPS), upgrades to the EW suite, and studies and analysis. All B-52 development programs support planned requirements for unique identification in their production phases.

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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: ATP ***Description:*** Develops software updates to integrate Sniper and LITENING ATPs and to add advanced ATP capabilities. Upgrades software functions of the AME control stick and display enabling all wired aircraft to utilize either Sniper or LITENING ATPs. ***FY 2010 Accomplishments:*** Test LITENING pod operational software in lab environment prior to developmental test. Execute developmental test to demonstrate and verify required performance for ATP software functionality, includes 8-10 unique test events. Provide repair and/or parts replacement for test pod assets; manage support for ATP pod software development, test and logistics; upgrade software functions of AME. ***FY 2011 Plans:*** Complete development, test, verify, and field ATP functions in B-52 WST equipment. ***FY 2012 Base Plans:*** ***FY 2012 OCO Plans:***	8.293	2.180	-	-	-
Title: CONECT ***Description:*** Integrates rapid re-tasking capability of J-series weapons and conventional cruise missiles; dedicated BLOS UHF comm/datalink; computer network infrastructure; digital interphone; MFCDs; and an IBR. ***FY 2010 Accomplishments:***	38.198	23.543	17.875	-	17.875

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continuation of CONECT ground and flight testing. Begin Technical Order Validation and Verification (TOV&V). Begin Depot Stand-up planning. Continue integration and lab testing of software drop C, begin integration of software drop D. Flight test aircraft was in depot mod 3Q FY10 through 1Q FY11. ***FY 2011 Plans:*** Resume ground and flight testing of Drop C, Drop D, and IBR. Begin integration and lab testing of additional J-Series messages. Analyze/fix ground/flight test issues as they are identified. Begin redesign of DMS LRU boards identified during FY10. Design, install, and test the redesign of the interphone system due to a deficiency found during flight test. ***FY 2012 Base Plans:*** Complete flight testing of the additional J-Series messages and IBR. Analyze/fix ground/flight test issues as they are identified. Begin incorporation of CONECT into the training devices. Continue DMS redesign and test effort. Request Milestone C approval to enter into Low Rate Initial Production (LRIP). ***FY 2012 OCO Plans:***					
Title: B-52 EHF ***Description:*** Integrates the FAB-T Airborne Wideband Terminal (AWT) to preserve existing B-52 capability to receive EAMs and transmit report-backs; supports USSTRATCOM requirement for secure, survivable communications. Upgrades/replaces B-52 ECS to support EHF and accommodate for B-52 aircraft system modifications. Future increment provides integration into GIG to provide wideband BLOS datalink. ***FY 2010 Accomplishments:*** Initiated EHF planning and risk reduction efforts to reach System Requirement Review (SRR) including the ECS requirements. Program re-set by Program Executive Officer (PEO) to pre-milestone B to better align with development of the AWT. ***FY 2011 Plans:*** Complete the additional risk reduction task efforts necessary to reach System Requirement Review (SRR). Initiate work efforts required to bring the EHF program through Preliminary Design Review (PDR), including	17.983	45.349	43.523	-	43.523

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
ECS, upgrade the SIL, purchase additional government furnished property (GFP) for the SIL, and perform antenna field testing and analysis. ***FY 2012 Base Plans:*** Continue PDR and SIL upgrade work efforts for AWT and ECS in preparation for MS B. Perform aircraft thermal survey and temperature model update to support PDR of the ECS upgrade. Continue integration and test planning of Increment I capability for EAMs and report backs. ***FY 2012 OCO Plans:***					
Title: Anti-skid ***Description:*** Replaces legacy B-52 Anti-skid system with modernized system improving safety and cockpit display. Anti-Skid Detector has been identified a critical obsolescence item, which begins to be unsupportable in FY15. ***FY 2010 Accomplishments:*** Define requirements for the Group A and control panel; begin development of the Group A hardware and control panel. Begin phased Systems Safety Analysis of anti-skid system level Failure Modes Effects and Criticality Analysis (FMECA); address aircraft integration issues; develop source control drawings, installation and deletion drawings; develop/revise wiring diagrams, harness designs, installations and deletions drawings. Conduct additional electromagnetic interference design and qualification requirements. ***FY 2011 Plans:*** Continue phased Systems Safety Analysis; conduct Hardware in the Loop (HITL) simulation and test reports; develop preliminary Tech Order (TO) source data and installation procedures; manufacture and procure flight test articles and hardware; continue flight test planning activities; identify and deliver overhaul special test equipment. ***FY 2012 Base Plans:*** Continue with HITL Simulations; Flight Test Activities, TO source data, Airworthiness Certification documents ***FY 2012 OCO Plans:***	9.325	5.996	6.218	-	6.218
Title: SR2	8.289	35.923	36.679	-	36.679

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Integrates modern non-developmental airborne radar replacing current, mission critical APQ-166 Strategic Radar, last upgraded in early-1980s. Legacy Strategic Radar is experiencing systemic sustainment and obsolescence issues and begins to be unsupportable in FY16. ***FY 2010 Accomplishments:*** SR2 program attained Material Development Decision (MDD) approval in 2Q FY10; Immediately following the MDD Approval, the program initiated risk reduction studies in support of the Material Solution Analysis (MSA) phase. Additionally, an eight-month Analysis of Alternatives (AoA) led by Air Force Global Strike Command was initiated in 3Q FY10. ***FY 2011 Plans:*** The SR2 program will continue the risk reduction activities AoA, and MSA phase studies and analysis. AFROC currently planned for 2Q FY11. MS A is planned for 3Q FY11. ***FY 2012 Base Plans:*** Initiate Technology Development Phase including integration of radar components, completion of preliminary design review ***FY 2012 OCO Plans:***					
Title: Mode S/5 IFF ***Description:*** Integrates modern IFF technology onto the B-52 by replacing the current system with APX-119; required by DoD, FAA and ICAO. ***FY 2010 Accomplishments:*** ***FY 2011 Plans:*** Define requirements and begin development of the Group A hardware and control panel; conduct system safety analysis of APX-119 FMECA as it relates to the aircraft integration. Address aircraft integration issues related to space, weight, electrical power, hydraulics, cooling impacts. Begin development of test strategy to define criteria to verify the system meets B-52 requirements. Develop source control drawings, develop/revise wiring diagrams, harness designs and installations drawings. Procure APX-119 test article and Common Control Panel prototype to begin lab testing of design. ***FY 2012 Base Plans:***	-	8.583	6.166	-	6.166

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Upgrade SIL, EMI/EMC Test procedures, identify long-lead components, complete all fabrication drawings, develop Installation Drawing package, conduct SIL testing, support ground/flight testing and Air Traffic Control Radar System IFF Mark 12/Mark 12A Systems platform certification, and report certification results					
FY 2012 OCO Plans:					
Title: 1760 IWB	11.472	24.522	22.800	-	22.800
Description: 1760 Internal Weapons Bay Upgrade - provides internal J-series weapons capability through modification of CSRLs with IWIU and upgraded weapon management software.					
FY 2010 Accomplishments: Continue development of JDAM SMO for internal bomb bay weapons release (Increment 1.1). For software testing perform engineering design review; update documentation and transition to Dynamic Object Oriented Requirements System (DOORS); perform Informal Qualification Testing (IQT) of SMO software; develop test procedures for Formal Qualification Testing (FQT); update Weapon System Simulator (WSS) and Data transfer cartridge Management System (DMS). For CSRL hardware evaluation perform field survey to evaluate CSRLs and Launcher-Loader Adapters (LLA); perform engineering studies to establish CRL baseline configuration; develop CSRL demodification procedure; design, develop, and fabricate six CRL handling fixtures; develop drawings for CRL baseline; and repair and modify four CSRLs. Perform CRL power distribution study. Perform Power Drive Unit Controller production readiness study. Begin development of the B-52. Baseline mission planning software for the JMPS.					
FY 2011 Plans: Continue Increment 1.1. Perform systems engineering and development to complete JDAM SMO FQT. Design, develop, fabricate and install modification components and drawings to yield four CRL prototypes for laboratory and flight testing to support concurrent testing in multiple locations. Develop test procedures and complete SIL testing of CRL protoypes and JDAM SMO software. Begin contractor support of ground and flight test concept development, planning, and test mission development. Support test instrumentation and modification to test aircraft. Begin support of fielding documentation. Design, develop and test software and hardware modifications to armament test support equipment. Begin mission planning modifications (UNIX system) in support of JDAM. Begin 1760 Internal Weapons Bay Increment 1, Phase 2 (Increment 1.2): development of JASSM/JASSM-ER SMO and MALD/MALD-J SMO modifications for internal bay capability. Begin B-52-specific JMPS development					

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
for JASSM and MALD and their respective variants. Begin Seek Eagle safe-separation analysis and modeling for bomb bay releases of JDAM, JASSM, MALD, and their variants. ***FY 2012 Base Plans:*** Continue Increment 1.1: Continue Seek Eagle safe separation analysis; conduct ground and flight testing of CRL prototype and JDAM SMO; finalize drawings for aircraft, CRL, and test support equipment modification kits; and complete development of technical orders. Continue Increment 1.2: Modify JASSM and MALD SMOs (including respective -ER and -J variant capabilities); perform engineering and test support for SIL, ground and flight testing. Develop technical orders. Continue B-52 JMPS development, testing, and certification with JASSM and MALD, including respective variants. ***FY 2012 OCO Plans:***					
Accomplishments/Planned Programs Subtotals	93.560	146.096	133.261	-	133.261

	FY 2010	FY 2011
Congressional Add: Tactical Data Link Congressional Add	5.949	-
FY 2010 Accomplishments: Congressional Add: Develop TDL architecture with an Information Support Plan. Perform an AoA. Develop candidate requirements and architecture definition for the B-52 CONECT architecture baseline. Perform SIL demonstration. Perform aircraft installation trade study. ***FY 2011 Plans:***		
Congressional Add: Nuclear Reconstitution Study	2.389	-
FY 2010 Accomplishments: Perform a conceptual study of the requirements needed to harden the IWIU for existing conventional J-series weapons and future nuclear 1760 capable weapons. The study will look at the feasibility of the integration of the Nuclear hardened IWIU (NHIWIU) on both the Common Strategic Rotary launcher and the SUU-67/72 pylons. ***FY 2011 Plans:***		
Congressional Adds Subtotals	8.338	-

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0101113F: *B52 Squadrons, Aircraft Procurement BP11, Mods APAF*	59.115	66.890	92.241	0.000	92.241	128.497	166.005	124.776	110.256	Continuing	Continuing
• PE 0809731F: *Training Support to Units, Aircraft Proceurement BP11, Mods APAF*	2.161	2.184	1.656	0.000	1.656	1.934	2.296	2.341	2.383	Continuing	Continuing
• PE 0101113F (2): *B52 Squadrons, Aircraft Procurement BP13, ICS APAF*	0.000	3.443	0.000	0.000	0.000	7.704	11.150	0.000	0.000	Continuing	Continuing
• PE 0101113F (3): *B52 Squadrons, Aircraft Procurement BP16, Initial Spares APAF*	7.638	7.050	0.000	0.000	0.000	7.011	7.825	8.315	2.516	Continuing	Continuing
• PE 0101113F (4): *B52 Squadrons, Aircraft Procurement BP19, Depot Standup APAF*	0.000	6.732	0.000	0.000	0.000	11.099	11.303	0.000	0.000	Continuing	Continuing
• PE 0101113F (5): *B52 Squadrons, Aircraft Procurement BP12, Support Equipment*	16.871	16.960	14.457	0.000	14.457	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

The B-52 CONECT EMD prime contract is sole source to Boeing Defense, Space & Security (DSS), Wichita, KS. Boeing will design, develop, test and procure the necessary equipment from their subcontractors; develop engineering drawings, logistic and technical data, and time compliance technical order (TCTO) for installation on the B-52. The EMD effort includes installing and testing CONECT equipment on a B-52 aircraft. The B-52 trainer assets will be modified to support CONECT.

The B-52 EHF EMD prime contract is sole source to Boeing DSS, Wichita, KS. Boeing will preserve the B-52 capability to receive EAMS and report-backs, upgrade current SIL and the environmental control system. The Engineering Manufacturing Development (EMD) effort will include installing and testing the EHF equipment on a B-52 aircraft. The B-52 trainer assets will be modified to support EHF.

The B-52 ATP program software development contract is sole sourced to Boeing DSS, Wichita. The ATP trainer development contract will be awarded by OO-ALC via their trainer contract.

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The 1760 Internal Weapons Bay program will acquire software development and hardware design via a sole-source contract to Boeing DSS, Wichita, KS. Deliverables include an updated J-series weapon SMOs (software), a prototype modified CSRL, logistics support, ground and flight test support, and engineering drawings. Production of IWIU, required for each modified CSRL, and will be sole source to Boeing. The program will competitively procure the CSRL modification kits (cables, connectors, and mounting brackets).

The B-52 Anti-Skid program is a joint effort between OC-ALC and OO-ALC. The modification will be implemented via Program Depot Maintenance (PDM) and Contract Field Team (CFT).

The B-52 Strategic Radar Replacement (SR2) Program is in the initial stage of acquisition planning. The detailed acquisition strategy will be developed based on the results of market research.

The Mode S/5 IFF Program is in the initial stage of acquisition planning. A detailed acquisition plan will be developed based on the results of the engineering studies being completed by ARINC Engineering Services, Oklahoma City, OK.

The Tactical Data Link (TDL) will be sole source to Boeing DSS, Wichita, KS for the integration of TDL based on the CONECT baseline.

The Reconstitution of B-52 Nuclear Capability Study will be sole source to Boeing DSS.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONECT EMD	SS/CPIF	Boeing:Wichita, KS	31.646	14.163	Oct 2010	9.659	Oct 2011	-		9.659	Continuing	Continuing	0.000
B-52 EHF EMD	SS/Various	Boeing:Wichita, KS	13.446	40.999	Jan 2011	38.473	Oct 2011	-		38.473	Continuing	Continuing	0.000
ATP Functions	Allot	WPAFB:Dayton, OH	1.300	-		-		-		-	0.000	1.300	0.000
Mode S/5 IFF EMD	C/CPFF	ARINC Engineering Services:Oklahoma City, OK	-	8.583	Jun 2011	6.176	Jun 2012	-		6.176	Continuing	Continuing	0.000
SR2	SS/CPFF	Boeing:Wichita, KS	4.015	5.900	Jan 2011	4.000	Jan 2012	-		4.000	97.304	111.219	0.000
Anti-Skid Replacement	Various	Boeing/ES3/OO-ALC UT:Wichita; Clearfield UT, KS	9.325	5.353	Jul 2011	3.228	May 2012	-		3.228	Continuing	Continuing	0.000
1760 IWB Software Development	SS/Various	Boeing:Wichita, KS	1.991	7.800	Mar 2011	8.714	Jan 2012	-		8.714	0.000	18.505	0.000
1760 IWB Production Development	SS/Various	Boeing:Wichita, KS	6.708	10.328	Mar 2011	5.847	Jan 2012	-		5.847	0.000	22.883	0.000
1760 IWB Mission Planning Development	PO	557 SMXS:Tinker AFB, OK	2.573	3.100	Jan 2011	2.205	Jan 2012	-		2.205	0.000	7.878	0.000
TDL	SS/FFP	Boeing:Wichita, KS	5.949	-		-		-		-	0.000	5.949	0.000
Reconstitution of B-52 Nuclear Capability Study	C/CPAF	Boeing:Wichita, KS	2.389	-		-		-		-	0.000	2.389	0.000
		Subtotal	79.342	96.226		78.302		-		78.302			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONECT Simulator/Trainer	Various	507 ACSS:OO-ALC, UT	0.550	0.401	Jan 2011	0.413	Jan 2012	-		0.413	Continuing	Continuing	0.000
B-52 EHF Simulator/Trainer	MIPR	507 ACSS:OO-ALC, UT	-	-		-		-		-	Continuing	Continuing	0.000
B-52 EHF Satellite Simulator - Lincoln Labs (FFRDC)	MIPR	ESC:Hanscom AFB, MA	3.340	2.100	Oct 2010	0.700	Jun 2012	-		0.700	0.000	6.140	0.000
ATP Software Trainer Upgrades	MIPR	OO-ALC:, UT	-	2.180	Jan 2011	-		-		-	0.000	2.180	0.000

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ATP Test Support	Various	Boeing:Wichita, KS	3.793	-		-		-		-	0.000	3.793	0.000
ATP Logistics Support	Various	Wright-Patterson AFB:, OH	0.097	-		-		-		-	0.000	0.097	0.000
SR2	Various	Wright-Patterson AFB:, OH	3.347	24.418	Oct 2010	25.871	Oct 2011	-		25.871	5.000	58.636	0.000
1760 IWB Trainer/Simulation Development	MIPR	OO-ALC:, UT	-	0.950	Jun 2011	0.949	Jun 2012	-		0.949	0.000	1.899	0.000
		Subtotal	11.127	30.049		27.933		-		27.933			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONECT 419 FLTS	PO	419 FLTS:Edwards AFB, CA	1.300	2.700	Oct 2010	1.300	Oct 2011	-		1.300	Continuing	Continuing	0.000
B-52 EHF 419 FLTS	PO	419 FLTS:Edwards AFB, CA	0.075	0.267	Jan 2011	0.267	Jan 2012	-		0.267	Continuing	Continuing	0.000
CONECT JTIC	MIPR	JTIC:Fort Huachuca, AZ	0.200	0.300	Oct 2010	0.200	Oct 2011	-		0.200	Continuing	Continuing	0.000
B-52 EHF	PO	JTIC/ AFOTECH:Edwards AFB, CA	0.025	0.801	May 2011	2.901	May 2012	-		2.901	Continuing	Continuing	0.000
ATP	PO	419 FLTS:Edwards AFB, CA	2.903	-		-		-		-	0.000	2.903	0.000
SR2	PO	Not specified.:Edwards AFB, CA	0.046	1.000	Jan 2011	1.600	Jan 2012	-		1.600	15.400	18.046	0.000
Anti-Skid Replacement	Various	Not specified.:Edwards, AFB, CA	-	0.643	Apr 2011	2.942	Mar 2012	-		2.942	0.000	3.585	0.000
1760 IWB Government Test	PO	Not specified.:Edwards AFB, CA	-	2.172	Jun 2011	4.939	Jan 2012	-		4.939	0.000	7.111	0.000
		Subtotal	4.549	7.883		14.149		-		14.149			0.000

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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONECT ASC/WWV	Various	ASC/WWV:Wright-Patterson AFB, OH	2.807	4.083	Oct 2010	4.350	Oct 2011	-		4.350	Continuing	Continuing	0.000
B-52 EHF	Various	ASC/WWV:Wright-Patterson AFB, OH	0.254	1.082	Oct 2010	1.082	Oct 2011	-		1.082	Continuing	Continuing	0.000
CONECT OCALC/GKDF	Various	OCALC/GKDF:Tinker AFB, OK	0.910	1.088	Oct 2010	1.121	Oct 2011	-		1.121	Continuing	Continuing	0.000
B-52 EHF OCALC/GKDF	Various	OC-ALC/GKDF:Tinker AFB, OK	-	-		-		-		-	Continuing	Continuing	0.000
ATP Management Support	Various	Not specified.:Tinker AFB, OK	0.200	-		-		-		-	0.000	0.200	0.000
SR2	Various	Not specified.:Tinker AFB, OK	0.208	4.605	Oct 2010	5.208	Oct 2011	-		5.208	10.629	20.650	0.000
1760 IWB Program Management Support	Various	Not specified.:Tinker AFB, OK	0.200	0.172	Aug 2011	0.184	Aug 2012	-		0.184	0.000	0.556	0.000
CONECT Program Support, Studies and Analysis, and Misc Expenses	Various	Various:,	0.785	0.808	Oct 2010	0.832	Oct 2011	-		0.832	0.000	2.425	0.000
B-52 EHF Program Support, Studies and Analysis	Various	Various:,	0.843	0.100	Oct 2010	0.100	Oct 2011	-		0.100	0.000	1.043	0.000
SR2 Program Support, Studies and Analysis	Various	Various:,	0.673	-		-		-		-	0.000	0.673	0.000
		Subtotal	6.880	11.938		12.877		-		12.877			0.000

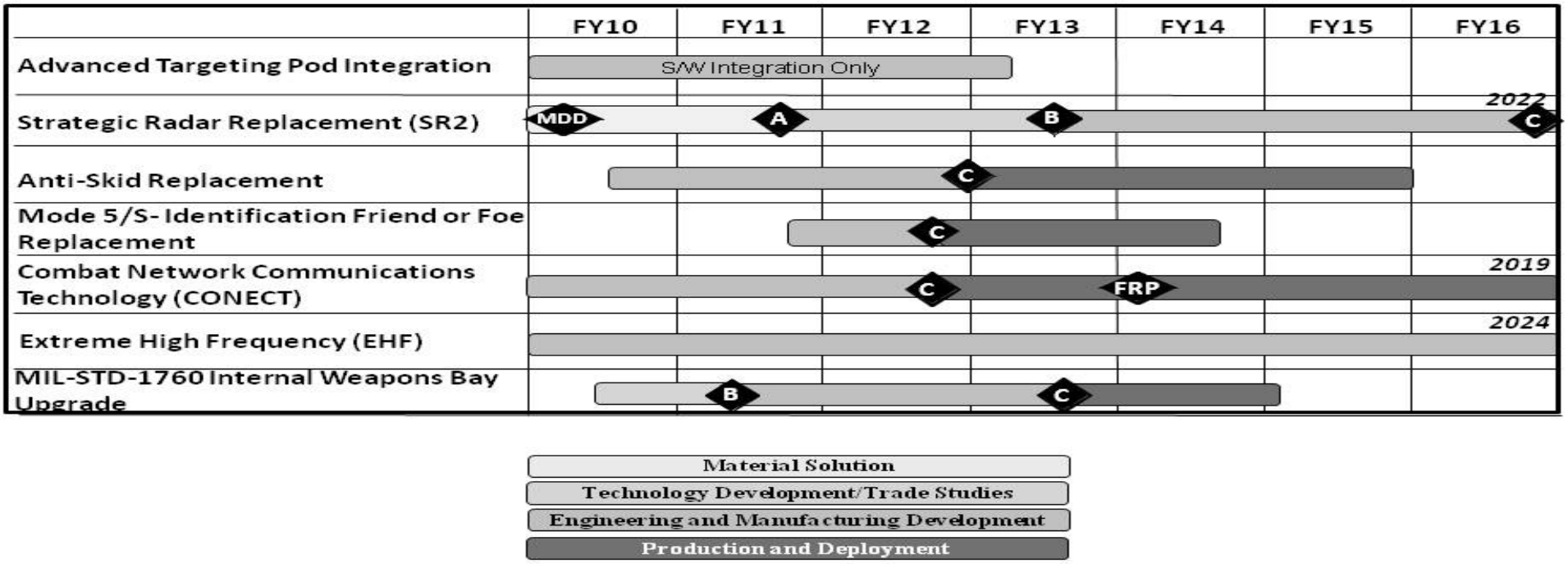
	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	101.898	146.096		133.261		-		133.261			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0101113F: *B-52 SQUADRONS*	PROJECT 675039: *B-52 Modernization*

B-52H Modernization Schedule

AFMC



12 Jan 11

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0101113F: *B-52 SQUADRONS*	**PROJECT** 675039: *B-52 Modernization*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CONECT Ground/Flight Test Drop D	3	2011	3	2012
CONECT LRIP Milestone C	3	2012	3	2012
CONECT OA	2	2012	2	2012
CONECT IOT&E	1	2013	1	2013
CONECT FRP DECISION	1	2014	1	2014
B-52 EHF EMD Increment 1	1	2010	4	2016
Anti-Skid EMD	2	2010	4	2012
Anti-Skid LRIP	3	2013	3	2013
SR2 MDD	2	2010	2	2010
SR2 MS A	3	2011	3	2011
ATP Flight Test	1	2011	1	2011
Mode S/5 IFF EMD	3	2011	3	2012
Mode S/5 IFF LRIP	3	2012	3	2012
1760 IWB EMD	2	2011	3	2013
1760 IWB Milestone C	3	2013	3	2013