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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 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0101213F I Minuteman Squadrons							
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	-	-	-	139.109	-	139.109	173.067	206.749	235.276	232.633	Continuing	Continuing
672983: MM Ground and Comm Equipment	-	-	-	23.678	-	23.678	40.654	36.461	2.891	3.653	Continuing	Continuing
672984: MM III Baseline Support	-	-	-	21.934	-	21.934	44.160	40.058	13.760	-	Continuing	Continuing
672985: MM Support Equip	-	-	-	40.466	-	40.466	9.589	22.977	20.861	6.023	Continuing	Continuing
672986: MM Crypto Mods	-	-	-	36.672	-	36.672	14.698	-	-	-	Continuing	Continuing
672987: MM Ops Equip	-	-	-	16.359	-	16.359	63.966	107.253	197.764	222.957	Continuing	Continuing
# The FY 2015 OCO Request will be submitted at a later date.												
Note In FY 2015, Project 672983, Minuteman (MM) Ground and Comm Equipment, was established under PE 0101213F, and includes new start efforts for Automatic Switching Unit (ASU), Ultra-High Frequency (UHF) Receiver, and Launch Control Center (LCC) Block Upgrades. In FY 2015, Project 672984, MM III Baseline Support, was established under PE 0101213F, and includes new start efforts for Modular Mechanical Ordnance Destruct System (MMODS), Ground Test Upgrades, and Baseline Support. In FY 2015, Project 672984, MM III Baseline Support, efforts were transferred from PE 0604851F, Intercontinental Ballistic Missile (ICBM) - Engineering Manufacturing Development (EMD), Project 655037, Support Equipment, in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the Instrumentation Wafer Replacement Program and Signal Conditioner Monitor. These programs were consolidated into the MM III Instrumentation Wafer Replacement Program (MMIWRP). In FY 2015, Project 672985, MM Support Equipment, was established under PE 0101213F, and includes new start effort for the Re-Entry Support Equipment Replacement (RSERP). In FY 2015, Project 672985, MM Support Equip, efforts were transferred from PE 0604851F, ICBM - EMD, Project 655037, Support Equipment, in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the Reentry Field Support Equipment (RFSE), Code System Media (CSM), Reentry Support Equipment Replacement Program (RSERP), Strategic Targeting Applications Computer System (STACS), and Transporter Erector Replacement Program (TERP). In FY 2015, Project 672986, MM Crypto Mods, was established under PE 0101213F and ongoing efforts were transferred from PE 0604851F, ICBM - EMD, Project 655081, ICBM Crypto in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the ICBM Crypto Unit II (ICU II).												

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In FY 2015, Project 672987, MM Ops Equip, was established under PE 0101213F and includes new start effort for Guidance Modernization. In FY 2015, Project 672987, MM Ops Equip, Solid Rocket Motor Modernization (SRMM) efforts are a continuation of FY 2013 SRMM efforts in PE 0604851F, ICBM - EMD, Project 657010, Ops Equipment. A. Mission Description and Budget Item Justification Minuteman (MM) Squadrons development efforts will ensure the extension of the operational life of the MM III ICBM weapon system through 2030. The MM III Ground and Comm Equipment program replaces obsolete/unsupportable ground-based weapon system equipment located at Launch Control Centers (LCCs) and Launch Facilities (LFs) necessary to continue MM III operations through 2030. Current efforts include development, qualification, integration, and testing of replacement equipment such as the LCC Block Upgrades, ASU, and UHF Receiver. As other similar equipment is identified for replacement, it will be added to this program. MM III Baseline Support program replaces or upgrades obsolete/unsupportable flight test unique equipment installed on the missile during flight test, used to test MM III systems on the ground, or located at test facilities to collect, process and analyze test data. Flight test equipment supports test and evaluation of newly developed or modified MM III capabilities and to conduct MM III Force Development Evaluations (FDEs) determining ICBM force readiness, reliability and capability shortfalls. Current efforts include development, qualification, integration and testing of replacement equipment such as the MMIWRP, MMODS and Ground Test Upgrades. As other similar equipment is identified for replacement, it will be added to this program. Baseline support also provides for other MM III unique government costs, studies of system performance, contract closeout costs, cost trades and acquisition planning activities, up to and including proposal preparation, for future capabilities. MM Support Equipment program designs, develops, and tests replacement of obsolete/non-serviceable weapon system support equipment. Current efforts include design, development, and testing of support equipment such as RFSE, CSM, STACS, TERP and RSERP. MM Crypto Mods executes USSTRATCOM, Air Force Global Strike Command, and Nuclear Weapon Safety Center requirements by implementing the KS-60 capabilities of remote key/code change and irreversible transformation as mandated in the approved Capabilities Development Document (dated 4 Jan 05) and addresses Nuclear Weapon System Safety Group Operational Safety Review requirements 98-2, 00-1 and 02-2. It also incorporates continuous signal lockout capabilities to prevent the widespread loss of status monitoring. These features will greatly increase security during code changes by reducing the frequency of open sites 75 days annually and will reduce associated resource costs for 450 Launch Facilities and 45 Launch Control Centers. MM Operational Equipment program designs, develops, and tests replacement of weapon system equipment including the Guidance Modernization effort and SRM Modernization effort. Beginning in FY15, the Guidance Modernization effort will provide modifications or replacements for the current MM III guidance subsystem necessary to ensure operations through 2030 and to support future Ground Based Strategic Deterrent (GBSD) requirements. Beginning in FY15, the SRM Modernization effort will provide modifications or replacements for the current MM III propulsion subsystem necessary to ensure operations through 2030 and to support future GBSD requirements.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force	Date: March 2014
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0101213F / <i>Minuteman Squadrons</i>
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This program is in Budget Activity 7, Operational System Development, because this budget activity includes developmental 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 years.

B. Program Change Summary (\$ in Millions)	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015 Base</u>	<u>FY 2015 OCO</u>	<u>FY 2015 Total</u>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	139.109	-	139.109
Total Adjustments	-	-	139.109	-	139.109
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	139.109	-	139.109

Change Summary Explanation

FY15 funding reflects increase of \$58.508M due to transfer from PE 0604851F, ICBM - EMD in order to consolidate ICBM investment activities under a common PE. FY15 also includes the following increases: \$23.678M for MM Ground and Comm Equipment (LCC Block Upgrades, UHF Receiver and ASU), \$21.934M for Baseline Support (MMIWRP, MMODS, Ground Test Upgrades, and Baseline Support), \$3.900M for MM Support Equipment (RSERP), \$14.730M for MM Crypto Mods (ICU II), and \$16.359M for MM Operational Equipment (Guidance Modernization and Solid Rocket Motor Modernization).

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672983 / MM Ground and Comm Equipment			
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
672983: MM Ground and Comm Equipment	-	-	-	23.678	-	23.678	40.654	36.461	2.891	3.653	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY 2015, Project 672983, Minuteman III (MM III) Ground and Comm Equipment, was established under PE 0101213F, and includes new start efforts for LCC Block Upgrades, MM III Auto Switching Unit (ASU), and MM III Ultra High Frequency Reciever (UHF Reciever).												
A. Mission Description and Budget Item Justification												
The MM III Ground and Comm Equipment program replaces obsolete/unsupportable ground-based weapon system equipment located at Launch Control Centers (LCCs) and Launch Facilities (LFs) necessary to continue MM III operations through 2030. Current efforts include development, qualification, integration and testing of replacement equipment such as the LCC Block Upgrades, ASU, and UHF Receiver. As other similar equipment is identified for replacement, it will be added to this program.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: LCC Block Upgrades - FY15 New Start									-	-	15.778	
Description: The LCC Block Upgrades program replaces the Journal Memory Loader (JML) and aging electrolytic capacitors. The current JML provides inadequate memory space to support mission requirements. Capacitors and other parts have exceeded life expectancy. When combined with parts obsolescence, these factors threaten the ability to remain compliant with CJCS and USSTRATCOM OPLAN 8010 Directives. In addition, it replaces the current printer which has reached the end of life-cycle and is having significant sustainability issues. The printer provides capability to handle and process Emergency Action Messages in hardcopy format when necessary. Finally, it replaces current equipment at LCCs for handling voice communications. The performance of current equipment is degraded, interferes with communication, and is unreliable.												
FY 2015 Plans: Begin design, development, fabrication and test of LCC Block Upgrades.												
Title: MM III Ultra High Frequency Reciever (UHF Reciever) - FY15 New Start									-	-	3.300	
Description: The UHF Receiver program will replace current receiver which is becoming unsupportable. The UHF receiver is required to support airborne launch control from the E-6B. Airborne Launch Control System equipment on-board the E-6B communicates through the UHF receivers and provides sustained and survivable capability to transmit launch codes to ICBMs if												

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Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672983 / MM Ground and Comm Equipment			
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2013	FY 2014	FY 2015	
LCCs are disabled. Current repair times for UHF receivers exceed 12 months due to parts obsolescence and additional spares cannot be procured.											
FY 2015 Plans: Begin design, development, fabrication and test of UHF Radio Receiver replacement equipment, and refresh training and repair capabilities.											
Title: MM III Automatic Switching Unit (ASU) - FY15 New Start								-	-	4.600	
Description: The ASU program will replace the current Minuteman ASU and Minuteman Power Processor (MPP). The ASU is controlled by the MPP, which contains software and electronics to measure incoming and standby power characteristics. Technical data does not exist for repair or reprogramming of the MPP. Current equipment and lack of repair/reprogram capability cause inadvertent source transfers by the MPP. The ASU contacts have exceeded their service life, and unnecessary source transfers stress mission critical components.											
FY 2015 Plans: Begin design, development and test of ASU replacement. Develop technical requirement documents to establish the procurement criteria for the replacement transfer switch and controller.											
Accomplishments/Planned Programs Subtotals								-	-	23.678	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• MPAF: BA 03: M30MLG: Minuteman III Modifications	-	-	16.707	-	16.707	51.959	102.872	59.390	61.084	Continuing	Continuing
Remarks Project 672983, MM Ground and Comm Equipment, is related to only a portion of MPAF funding in Other Program Funding Summary.											
D. Acquisition Strategy Support and test equipment replacement efforts are reviewed to determine the best method for execution including vendor qualification and procurement with no development required, develop and/or modification with organic depot capabilities or development with industry. Industry development efforts will be executed through contracts available under the Future ICBM Acquisition and Sustainment Construct (FISAC) or competitive source selections. Nuclear Surety Cross Check Analysis (NSCCA) and Independent Verification and Validation (IV&V) efforts are contracted separately under a Cost Plus Award Fee (CPAF) Contract.											

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101213F / <i>Minuteman Squadrons</i>	Project (Number/Name) 672983 / <i>MM Ground and Comm Equipment</i>

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

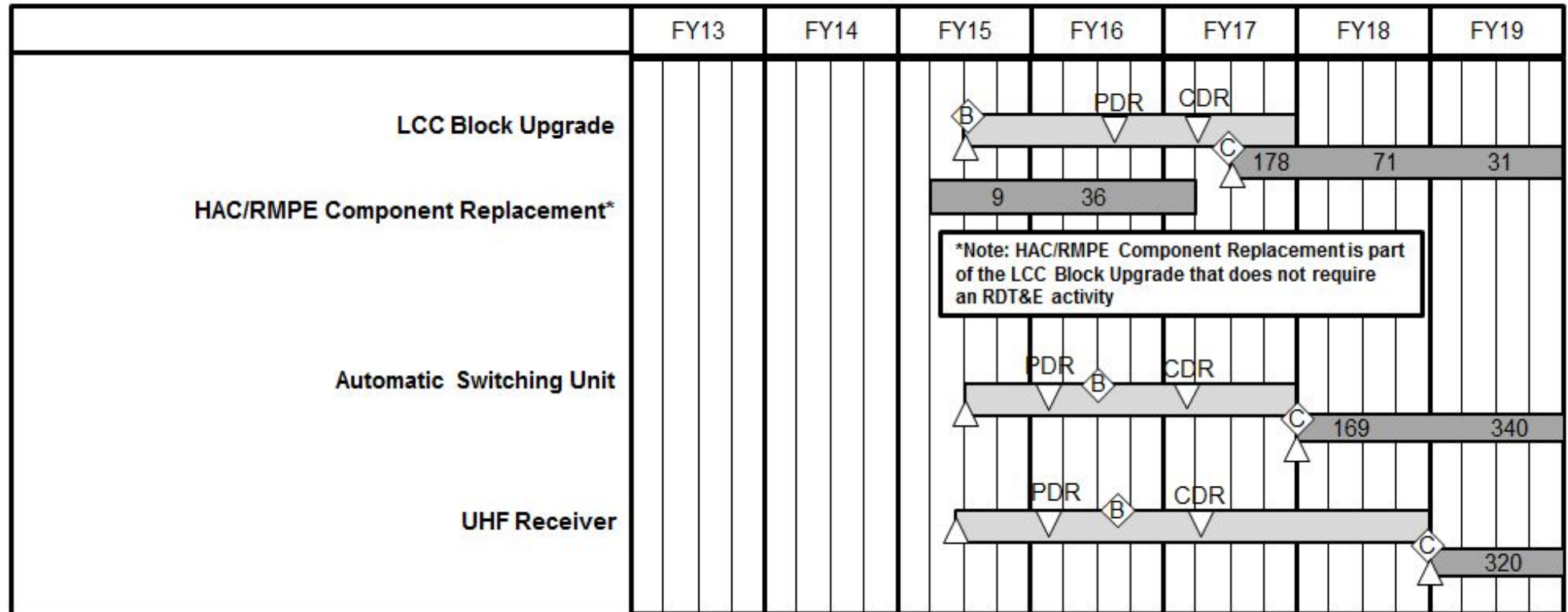
Date: March 2014

Appropriation/Budget Activity
3600 / 7

R-1 Program Element (Number/Name)
PE 0101213F / Minuteman Squadrons

Project (Number/Name)
672983 / MM Ground and Comm Equipment

MM Ground and Comm Equipment



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672984 / MM III Baseline Support			
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
672984: MM III Baseline Support	-	-	-	21.934	-	21.934	44.160	40.058	13.760	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY 2015, Project 672984, MM III Baseline Support, was established under PE 0101213F, and includes new start efforts for MM III Modular Mechanical Ordnance Destruct System (MMODS), Ground Test Upgrades, and Baseline Support.												
In FY 2015, Project 672984, MM III Baseline Support, efforts were transferred from PE 0604851F, Intercontinental Ballistic Missile (ICBM) - Engineering Manufacturing Development (EMD), Project 655037, Support Equipment, in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the Instrumentation Wafer Replacement Program and Signal Conditioner Monitor. These programs were consolidated into the MM III Instrumentation Wafer Replacement Program (MMIWRP).												
A. Mission Description and Budget Item Justification												
Minuteman III (MM III) Baseline Support program replaces or upgrades obsolete/unsupportable flight test unique equipment installed on the missile during flight test, used to test MM III systems on the ground, or located at test facilities to collect, process and analyze test data. Flight test equipment supports test and evaluation of newly developed or modified MM III capabilities and to conduct MM III Force Development Evaluations (FDEs) determining ICBM force readiness, reliability and capability shortfalls. Current efforts include development, qualification, integration and testing of replacement equipment such as the MMIWRP, MMODS and Ground Test Upgrades. As other similar equipment is identified for replacement, it will be added to this program. Baseline support also provides for other MM III unique government costs, studies of system performance, contract closeout costs, cost trades and acquisition planning activities, up to and including proposal preparation, for future capabilities.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: MM III Instrumentation Wafer Replacement Program (MMIWRP)									-	-	5.788	
Description: MMIWRP will design and develop replacements for the Mod 7 Instrumentation Wafer and associated signal conditioner monitor. The instrumentation wafer transmits missile performance telemetry and position data and receives command destruct messages during missile flight tests and evaluations. The Signal Conditioner Monitor, Missile Discrete Monitor and associated cabling capture Reentry System performance data during FDE and developmental flight tests. MMIWRP is needed to mitigate the risk of postponing MM III test launches due to parts obsolescence, asset depletion, 30th Space Wing Range Safety requirement deficiencies, and multiple failures of the Mod 7 Instrumentation Wafer System. This effort is not a new start in FY15. Reflected in PE 0604851F ICBM - EMD, Project 655037, Support Equipment in FY14.												
FY 2014 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force			Date: March 2014		
Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons	Project (Number/Name) 672984 / MM III Baseline Support		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2013	FY 2014	FY 2015
Not Applicable					
FY 2015 Plans: Continue design, development, fabrication and test of the replacement wafer, determine specific Commercial Off-the-Shelf components and begin review of all Range Safety requirements. Conduct PDR.					
Title: MM III Modular Mechanical Ordnance Destruct System (MMODS) - FY15 New Start Description: MMODS will replace the current flight destruct capability on MM III used during flight test and FDEs and flight tests. It is used in the event of a flight anomaly where it would be necessary to destroy the missile. The current system is becoming unsupportable and does not meet updated Range Safety Standards (RCC00319-07). FY 2015 Plans: Begin design, development, fabrication, and test of MMODS. Conduct PDR and CDR.			-	-	10.646
Title: MM III Baseline Support - FY15 New Start Description: MM III Baseline Support provides for other MM III unique government costs, studies of system performance, contract closeout costs, cost trades, and acquisition planning activities, up to and including proposal preparation, for future capabilities. FY 2015 Plans: Conduct studies of system performance, contract closeout costs, cost trades and acquisition planning activities, up to and including proposal preparation, for future capabilities.			-	-	0.500
Title: Ground Test Upgrades - FY15 New Start Description: Ground Test Upgrades will design a replacement for the Simulated Electronic Launch Minuteman and Guided Missile Launcher Electronic Circuit test sets. Both test sets enable operational checkout and test of Launch Facilities up to the point of actual MM III launch. Program will address parts obsolescence and combine the two test sets into one using the same interfaces and cables. FY 2015 Plans: Begin design, development, fabrication and testing of replacement equipment for Ground Test Upgrades. Award the EMD contract and conduct a successful Preliminary Design Review (PDR).			-	-	5.000
Accomplishments/Planned Programs Subtotals			-	-	21.934

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101213F / <i>Minuteman Squadrons</i>	Project (Number/Name) 672984 / <i>MM III Baseline Support</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE: BA05: PE 0604851F: <i>ICBM - EMD</i>	120.375	112.760	-	-	-	-	-	-	-	-	-
• MPAF: BA01: M30GLG: <i>Missile Replacement Equipment - Ballistic</i>	24.845	38.940	80.187	-	80.187	84.156	47.261	42.543	43.038	Continuing	Continuing

Remarks

Project 672984, MM Baseline Support, is related to only a portion of RDT&E and MPAF funding in Other Program Funding Summary.

D. Acquisition Strategy

Baseline Support replacement efforts are reviewed to determine the best method for execution including vendor qualification and procurement with no development required, develop and/or modification with organic depot capabilities or development with industry. Industry development efforts will be executed through contracts available under the Future ICBM Acquisition and Sustainment Construct (FISAC) or competitive source selections. Nuclear Surety Cross Check Analysis (NSCCA) and Independent Verification and Validation (IV&V) efforts are contracted separately under a Cost Plus Award Fee (CPAF) Contract.

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

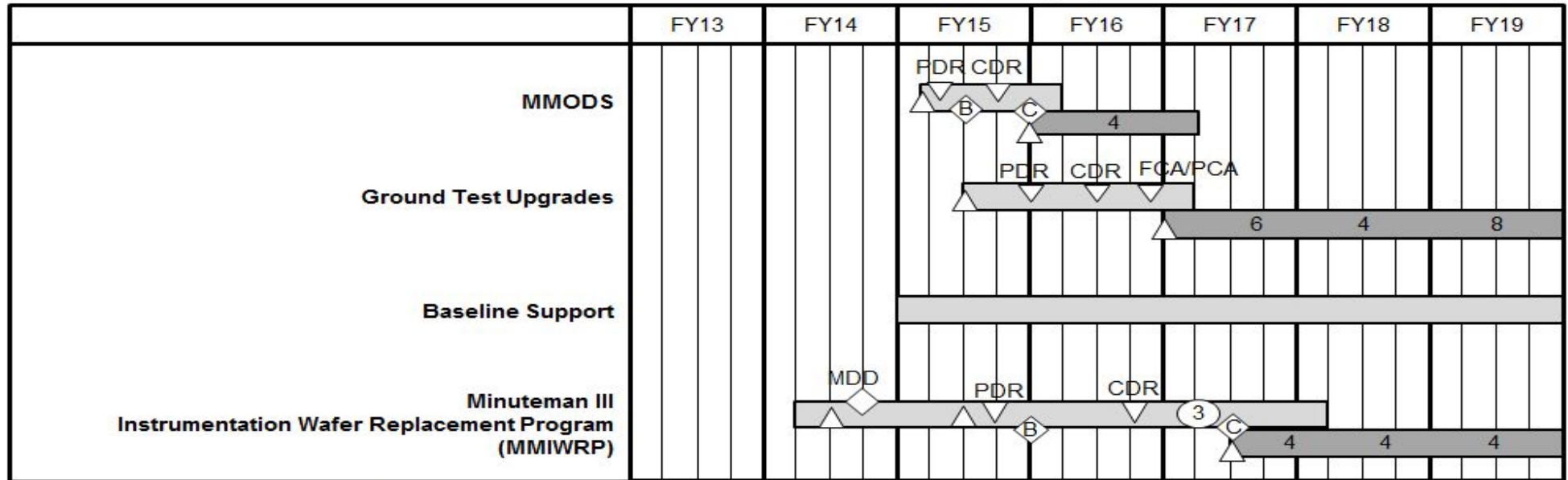
Date: March 2014

Appropriation/Budget Activity
3600 / 7

R-1 Program Element (Number/Name)
PE 0101213F / Minuteman Squadrons

Project (Number/Name)
672984 / MM III Baseline Support

MM III Baseline Support



▽ Preliminary or Critical Design Review ◇ Milestone Decision (#) EMD Delivery # Production Buy △ Contract Award

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Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672985 / MM Support Equip			
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
672985: MM Support Equip	-	-	-	40.466	-	40.466	9.589	22.977	20.861	6.023	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note In FY 2015, Project 672985, MM Support Equip, was established under PE 0101213F, and includes new start effort for the MM III Reentry Support Equipment Replacement Program (RSERP). In FY 2015, Project 672985, MM Support Equip, efforts were transferred from PE 0604851F, ICBM - EMD, Project 655037, Support Equipment, in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the Reentry Field Support Equipment (RFSE), Code System Media (CSM), Strategic Targeting Applications Computer (STACS), and Transporter Erector Replacement Program (TERP). A. Mission Description and Budget Item Justification MM Support Equipment program designs, develops, and tests replacement of obsolete/non-serviceable weapon system support equipment. Current efforts include design, development, and testing of support equipment such as RFSE, CSM, STACS, TERP and RSERP. B. Accomplishments/Planned Programs (\$ in Millions)												
									FY 2013	FY 2014	FY 2015	
Title: Reentry Field Support Equipment (RFSE) Description: Design and develop the RFSE to replace the current reentry system (RS) test set. RFSE will increase the Mean Time Between Failure, eliminate unneeded Mk12 functions, and add new Mk21 functions. It will provide capability to meet Department of Energy mandated Limited Life Component warhead swaps and to test electrical continuity during buildup of Minuteman III reentry systems. Reflected in PE 0604851F, ICBM - EMD, Project 655037, Support Equipment in FY13/14. FY 2013 Accomplishments: Not Applicable FY 2014 Plans: Not Applicable FY 2015 Plans: Continue design, development, fabrication and testing of RFSE units. Conduct a successful Milestone C briefing. Continue Independent Validation and Verification (IV&V) activities.									-	-	12.476	
Title: Code System Media (CSM)									-	-	4.549	

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014
Description: The CSM program supports the replacement of obsolete tape cartridges with more modern and available magnetic media. Segment #1, responsible for providing software to accept National Security Agency (NSA) codes, Operations Plan (OPLAN) changes and software updates on compact disk (CD), has been completed. Segment #2 will provide software and hardware necessary to import all other data on CD and produce Wing Codes Processing System products on CD. Segment #2 will also replace the Cartridge Transfer Unit (CTU) with the Data Transfer Unit (DTU). CSM effectively supports the replacement of aging media required to transport and handle mission essential codes and data throughout the ICBM weapon system. The shelf life of the current stock of DC300 tape cartridges and 9-track tapes begin to expire in 2015. CSM delivers the capability to load codes/software on Minuteman III ICBMs through 2030 and is critical to code change activities. Reflected in PE 0604851F, ICBM - EMD, Project 655037, Support Equipment in FY13/14. FY 2013 Accomplishments: Not Applicable FY 2014 Plans: Not Applicable FY 2015 Plans: Continue design, development, fabrication and testing of CSM software. Complete first article production, Test Readiness Review, and system qualification testing of DTU. Hold Functional and Physical Configuration Audits (FCA/PCA). Certify design readiness for Full Rate Production decision. Verify and deliver of tech data to accompany First Article Test and Evaluations. Conduct a successful Milestone C briefing.			
Title: Strategic Targeting Applications Computer System (STACS) Description: Design and develop a replacement for the STACS hardware, software and tape cartridge media, which are becoming obsolete and unsupportable. STACS will provide new targeting computer equipment and software, and CD media for data import and export. STACS enables USSTRATCOM required OPLAN changes and updates to ICBM missile wings for execution. Reflected in PE 0604851F, ICBM - EMD, Project 655037, Support Equipment for FY13 and FY14. FY 2013 Accomplishments: Not Applicable FY 2014 Plans: Not Applicable FY 2015 Plans: Continue design and development activities. Complete FCA/PCA. Complete certification and deliver the STACS replacement.		-	-
Title: Transporter Erector Replacement Program (TERP)		-	17.787

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B. Accomplishments/Planned Programs (\$ in Millions)										FY 2013	FY 2014	FY 2015
Description: Design and develop the capabilities necessary to replace the current transporter erector (TE). The TE is used to emplace, extract and transport Minuteman III boosters to and from the launch facilities. TERP will update existing drawings, specifications and technical orders to eliminate parts obsolescence and address intended usage through 2030 and will qualify the new system prior to production. Reflected in PE 0604851F, ICBM - EMD, Project 655037, Support Equipment in FY14 FY 2014 Plans: Not Applicable FY 2015 Plans: Continue design, development, fabrication and testing of replacement TE. Complete first article production, Test Readiness Review, and system qualification testing. Complete FCA/PCA. Certify design readiness for Full Rate Production decision. Verify and deliver of tech data to accompany First Article TE. Conduct a successful Milestone C briefing.												
Title: Reentry Support Equipment Replacement (RSERP) - FY15 New Start Description: Design, develop, fabricate and test the RSERP to modify or replace the 30+ year old suite of test equipment necessary to continue checkout, screening, repair, and refurbishment of Mk12A/Mk21 Arming Fuzing Assemblies. FY 2015 Plans: Begin the design, development, fabrication, and test of RSERP. Conduct a successful Milestone B briefing.										-	-	3.915
Accomplishments/Planned Programs Subtotals										-	-	40.466
C. Other Program Funding Summary (\$ in Millions)												
Line Item	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	
• RDTE: BA05: PE 0604851F: ICBM - EMD	120.375	112.760	-	-	-	-	-	-	-	-	-	
• MPAF: BA01: M30GLG: Missile Replacement Equipment - Ballistic	24.845	38.940	80.187	-	80.187	84.156	47.261	42.543	43.038	-	-	
Remarks												
Project 672985, MM Support Equipment, is related to only a portion of RDT&E and MPAF funding in Other Program Funding Summary.												
D. Acquisition Strategy												
Support and test equipment replacement efforts are reviewed to determine the best method for execution including vendor qualification and procurement with no development required, develop and/or modification with organic depot capabilities or development with industry. Industry development efforts will be executed through												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101213F / <i>Minuteman Squadrons</i>	Project (Number/Name) 672985 / <i>MM Support Equip</i>

contracts available under the Future ICBM Acquisition and Sustainment Construct (FISAC) or competitive source selections. Nuclear Surety Cross Check Analysis (NSCCA) and Independent Verification and Validation (IV&V) efforts are contracted separately under a Cost Plus Award Fee (CPAF) Contract.

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

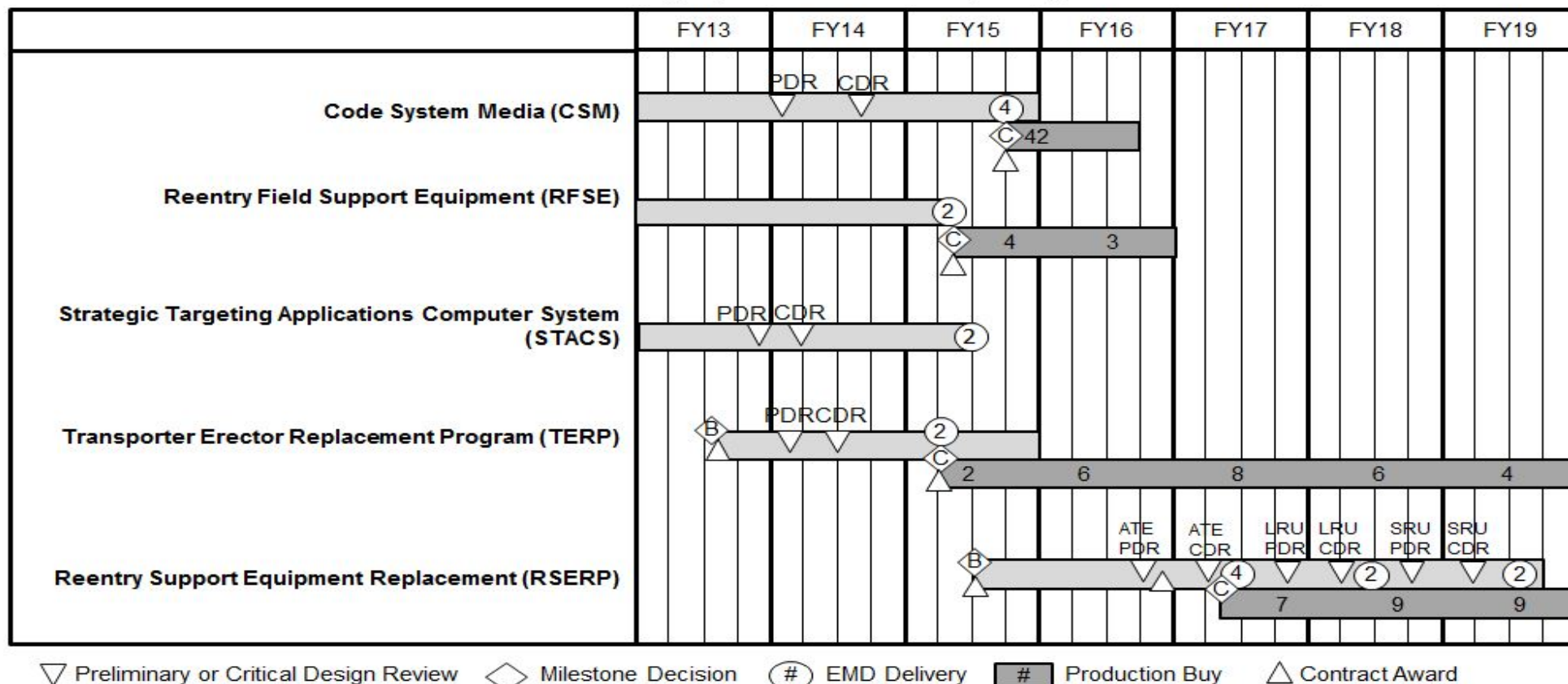
Date: March 2014

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 0101213F / Minuteman Squadrons

Project (Number/Name)
672985 / MM Support Equip

MM III Support Equipment



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014			
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672986 / MM Crypto Mods				
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	
672986: MM Crypto Mods	-	-	-	36.672	-	36.672	14.698	-	-	-	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			
# The FY 2015 OCO Request will be submitted at a later date.													
Note In FY 2015, Project 672986, MM Crypto Mods, was established under PE 0101213F and efforts were transferred from PE 0604851F, ICBM - EMD, Project 655081, ICBM Crypto, in order to consolidate ICBM investment efforts under a common PE. Specific efforts transferred include the ICBM Crypto Unit II (ICU II).													
A. Mission Description and Budget Item Justification MM Crypto Mods executes USSTRATCOM, Air Force Global Strike Command, and Nuclear Weapon Safety Center requirements by implementing the KS-60 capabilities of remote key/code change and irreversible transformation as mandated in the approved Capabilities Development Document (dated 4 Jan 05) and addresses Nuclear Weapon System Safety Group Operational Safety Review requirements 98-2, 00-1 and 02-2. It also incorporates continuous signal lockout capabilities to prevent the widespread loss of status monitoring. These features will greatly increase security during code changes by reducing the frequency of open sites 75 days annually and will reduce associated resource costs for 450 Launch Facilities and 45 Launch Control Centers.													
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015		
Title: ICBM Crypto Upgrade Increment II (ICU II)									-	-	36.672		
Description: ICBM Cryptography Upgrade II completes design and development, implements KS-60 remote key/code change, irreversible transformation capabilities, and prevents continuous signal lockout. Reflected in PE 0604851F, ICBM - EMD, Project 655081, ICBM Crypto in FY13/14.													
FY 2013 Accomplishments: Not applicable													
FY 2014 Plans: Not Applicable													
FY 2015 Plans: Complete A4 Drawer qualification and weapon system testing. Prepare documentation for Milestone C and the Production and Deployment phase.													
Accomplishments/Planned Programs Subtotals									-	-	36.672		

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force									Date: March 2014		
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672986 / MM Crypto Mods			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• RDTE: BA05: PE 0604851F: ICBM - EMD	120.375	112.760	-	-	-	-	-	-	-	-	-
• MPAF: BA 03: M30MLG: Minuteman III Modifications	48.404	2.586	16.707	-	16.707	51.959	102.872	59.390	61.084	Continuing	Continuing
• MPAF: BA 04: Line Item # 000999: Initial Sapes/Repair Parts	1.208	-	12.938	-	12.938	-	0.397	7.998	0.199	Continuing	Continuing
Remarks											
Project 672986, MM Crypto Mods, is related to only a portion of RDT&E and MPAF funding in Other Program Funding Summary.											
D. Acquisition Strategy											
The ICBM Cryptography Upgrade (ICU) II Program utilizes the ICBM Prime Integration Contract (IPIC) services of Northrop Grumman (NG), which were competitively awarded for the design and development of the ICU II capability. The contract type of the ICU II Engineering and Manufacturing Development (EMD) Contract is Cost Plus Incentive Fee. Also, ICU II EMD uses a separate contract for Nuclear Surety Cross Check Analysis/Performance Analysis and Technical Evaluation (NSCCA/PATE) Independent Validation & Verification (IV&V). The contract type is Cost Plus Fixed Fee, awarded to NG Technical Services. This contract is driven by critical nuclear surety requirements to perform an independent assessment of all modifications to nuclear-certified software.											
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-4, RDT&E Schedule Profile: PB 2015 Air Force

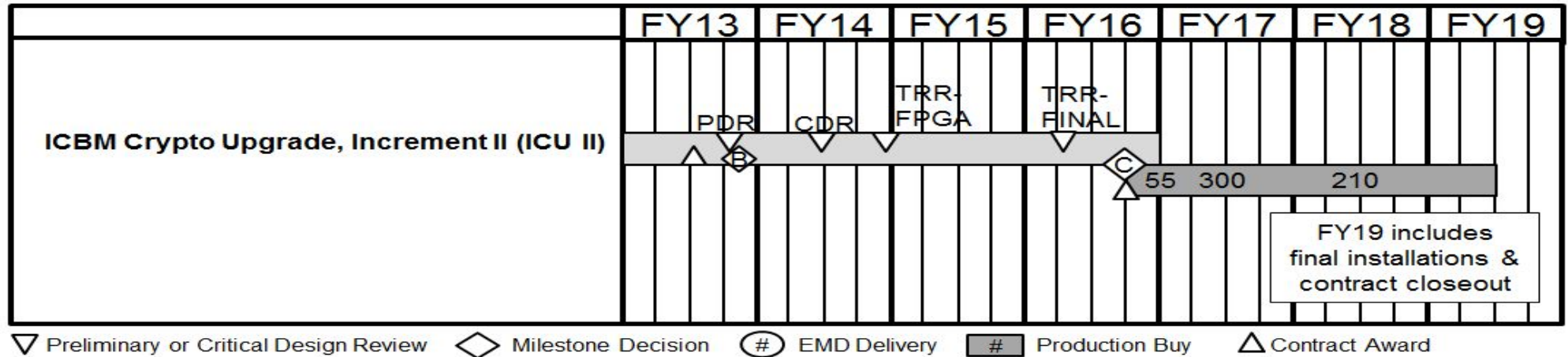
Date: March 2014

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 0101213F / Minuteman Squadrons

Project (Number/Name)
672986 / MM Crypto Mods

ICU II



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672987 / MM Ops Equip			
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
672987: MM Ops Equip	-	-	-	16.359	-	16.359	63.966	107.253	197.764	222.957	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2015, Project 672987, MM Ops Equip, was established under PE 0101213F and includes new start effort for Guidance Modernization.

In FY 2015, Project 672987, MM Ops Equip, Solid Rocket Motor Modernization (SRMM) efforts are a continuation of FY 2013 SRMM efforts in PE 0604851F, ICBM - EMD, Project 657010, Ops Equipment.

A. Mission Description and Budget Item Justification

MM Operational Equipment program designs, develops, and tests replacement of weapon system equipment including the MM III Guidance and Solid Rocket Motor (SRM).

Beginning in FY15, the Guidance Modernization effort will provide modifications or replacements for the current MM III guidance subsystem necessary to ensure operations through 2030 and to support future Ground Based Strategic Deterrent (GBSD) requirements. Guidance Modernization will define requirements further, explore available technologies and architectures, select the most promising technology and architecture for development, and prepare acquisition plans for a future Guidance Modernization Program. Efforts under the ICBM Demonstration/Validation (Dem/Val) Guidance Applications Program (GAP) will be leveraged to inform these efforts.

Beginning in FY15, the SRMM effort will define operational requirements, investigate available technologies and prepare an acquisition strategy for SRM development. This effort, coupled with Propulsion Application Program (PAP), under PE 0603851F, ICBM Dem/Val, will support development of requirements and implementation timeline for a follow-on SRM program.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2013	FY 2014	FY 2015
Title: Guidance Modernization - FY15 New Start	-	-	15.900
Description: Guidance Modernization effort will provide modifications or replacements for the current MM III guidance subsystem necessary to ensure operations through 2030 and to support future Ground Based Strategic Deterrent (GBSD) requirements.			
FY 2015 Plans: Continue technology assessment and development initiated under ICBM Demonstration/ Validation Guidance Applications Program. Establish contracts with multiple contractors with promising technology and architectures relevant for a guidance replacement. Continue efforts to mature technologies and define requirements and modular architectures. Prepare acquisition			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0101213F / Minuteman Squadrons				Project (Number/Name) 672987 / MM Ops Equip				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2013	FY 2014	FY 2015
strategies and plans for a Milestone A decision point leading to a Guidance Modernization Program. Begin development of Enhanced Ground Test capability.												
Title: Solid Rocket Motor Modernization Description: SRMM effort will focus on reducing the total ownership cost of the MM III weapon system by utilizing technologies developed in the Intercontinental Ballistic Missile Propulsion Applications Program to modernize the MM III booster stack and address maintenance and obsolescence issues realized in the legacy system. FY 2013 SRMM efforts are in PE 0604851F, ICBM - EMD, Project 657010, Ops Equipment. FY 2015 Plans: Evaluate inputs from the FY13 SRMM concept characterization and trade studies. Continue technology assessment and development initiated under ICBM Demonstration/ Validation Propulsion Applications Program. Continue efforts to mature technologies and define requirements. Prepare acquisition strategies and plans for a Milestone A decision point leading to a SRMM Program.										-	-	0.459
Accomplishments/Planned Programs Subtotals										-	-	16.359
C. Other Program Funding Summary (\$ in Millions)												
Line Item	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	
• RDTE: BA04: PE 0603851F: ICBM - Dem/Val	63.153	72.696	30.885	-	30.885	18.029	16.327	9.916	9.889	-	-	
• RDTE: BA04: PE 0604851F: ICBM - EMD	7.110	-	-	-	-	-	-	-	-	-	-	
Remarks												
D. Acquisition Strategy												
Guidance Modernization will prepare for Milestone A efforts leveraging FY14 studies and market research performed under ICBM Dem/Val GAP that have identified and matured materiel solutions to various stages of technical readiness. Based on current MM III and future GBSD requirements, multiple contracts will be competitively awarded following Milestone A supporting follow-on down-select of the best solution. It is anticipated that multiple contracts will be awarded as Cost Plus Fixed Fee, Cost Plus Incentive Fee, Fixed Price Incentive, and/or Firm Fixed Price.												
SRMM will conduct pre-acquisition efforts in conjunction with ongoing ICBM Dem/Val PAP efforts maturing SRM. As these efforts are conducted and results from SRM aging and surveillance activities and GBSD Analysis of Alternatives become available, a follow-on SRMM strategy will be established. FY13 SRMM funding will be disbursed using two contract vehicles. The first contract will utilize Hill Air Force Base's Design Engineering Support Program III (DESP III). This will be a competitive												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0101213F / <i>Minuteman Squadrons</i>	Project (Number/Name) 672987 / <i>MM Ops Equip</i>
source selection, Indefinite Delivery, Indefinite Quantity (ID/IQ), Cost Plus Fixed Fee (CPFF) contract. The second effort will use the existing Space and Missile Systems Center (SMC) General Service Administration (GSA) contract, which is a Firm Fixed Price (FFP) contract.		
<u>E. Performance Metrics</u> 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-4, RDT&E Schedule Profile: PB 2015 Air Force

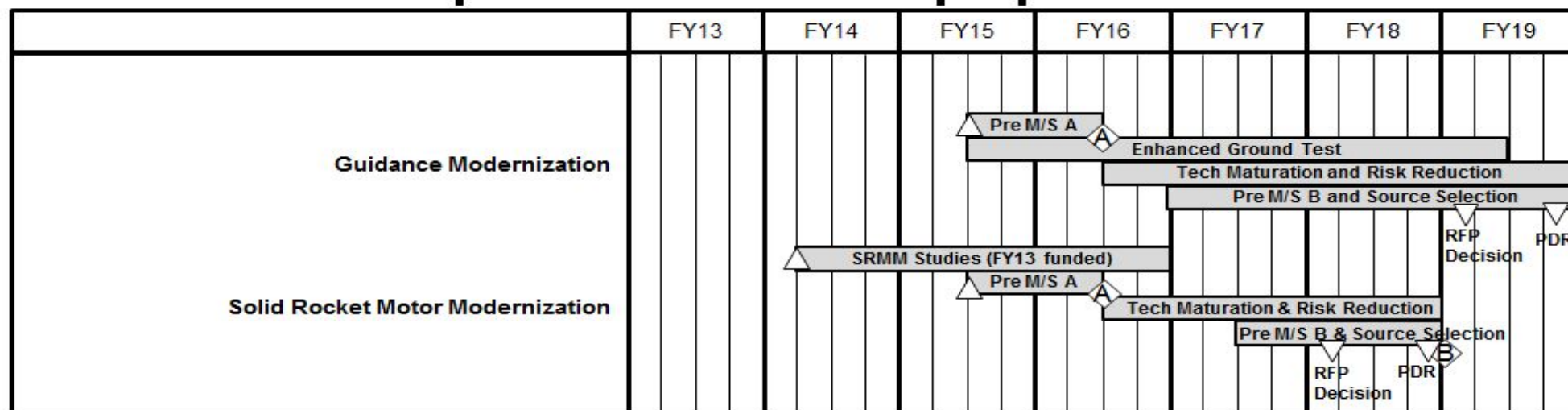
Date: March 2014

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 0101213F / <i>Minuteman Squadrons</i>

Project (Number/Name) 672987 / MM Ops Equip	
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Operational Equipment



▽ Preliminary or Critical Design Review ◇ Milestone Decision (#) EMD Delivery # Production Buy △ Contract Award