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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>
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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	-	120.375	112.760	-	-	-	0.001	-	-	-	Continuing	Continuing
655037: <i>Support Equipment</i>	-	84.784	81.744	-	-	-	0.001	-	-	-	Continuing	Continuing
655081: <i>ICBM Crypto</i>	-	28.481	31.016	-	-	-	-	-	-	-	Continuing	Continuing
657010: <i>Operational Equipment</i>	-	7.110	-	-	-	-	-	-	-	-	Continuing	Continuing

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

Note

In FY 2015, Project 655037, Support Equipment, efforts were transferred to PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip, and Project 672984, MM III Baseline Support in order to consolidate ICBM investment activities under a common PE.

In FY 2015, Project 655081, ICBM Crypto, efforts were transferred to PE 0101213F, Minuteman Squadrons, Project 672986, MM Crypto Mods in order to consolidate ICBM investment activities under a common PE.

A. Mission Description and Budget Item Justification

Intercontinental Ballistic Missile (ICBM) Engineering and Manufacturing Development (EMD) efforts will ensure the extension of the operational life of the Minuteman III ICBM weapon system through 2030.

The Support Equipment program designs, develops, and tests replacement of obsolete/non-serviceable weapon system support and flight test equipment. The efforts include design, development, and testing of support equipment such as Electrical-Electronic Equipment Test Sets (EEETS), Reentry Field Support Equipment (RFSE), Code System Media (CSM), Payload Transporter Replacement (PTR), Higher Authority Command/Rapid Message Processing Element (HAC/RMPE) Message Generator, Strategic Targeting Application Computer System (STACS), and Transporter Erector Replacement Program (TERP). In FY15, efforts listed above in PE 0604851F, Intercontinental Ballistic Missile - EMD, Project 655037, Support Equipment will be included in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip. Also in FY15, PTR funding was eliminated pending revalidation of the requirement through an ICBM Transportation Security Study due July 2014. PTR development will continue in FY14.

Efforts also include the design, development, and testing of replacement flight test equipment necessary to conduct Force Development Evaluations (FDEs) and ICBM Fuze Modernization flight tests such as the Instrumentation Wafer Replacement Program (IWRP) and the Signal Conditioner Monitor (SCM) replacement program. FDEs are required by USSTRATCOM and the Department of Energy to determine continuing reliability and effectiveness of the ICBM weapon system. Beginning in FY 2015, IWRP and SCM efforts previously included in PE 0604851F, Intercontinental Ballistic Missile - EMD, Project 655037, Support Equipment will be included in PE 0101213F, Minuteman Squadrons, Project 672984, MM III Baseline Support as one combined program, the MM III Instrumentation Wafer Replacement Program (MMIWRP).

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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 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>
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Intercontinental Ballistic Missile (ICBM) Cryptography Upgrade Increment II (ICU II) executes USSTRATCOM, Air Force Global Strike Command (AFGSC), and Nuclear Weapon Safety Center (NWSC) requirements by implementing the KS-60 capabilities of remote key/code change and irreversible transformation as mandated in the approved Capabilities Development Document (CDD) dated 4 January 2005 and addresses Nuclear Weapon System Safety Group Operational Safety Review (NWSSG OSR) 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 (LF) and 45 launch control centers (LCC). In FY 2015, ICU II effort previously included in PE 0604851, Intercontinental Ballistic Missile - EMD, Project 655081, ICBM Crypto will be included in PE 0101213F, Minuteman Squadrons, Project 672986, MM Crypto Mods.

The Operational Equipment program designs, develops, and tests replacement of weapon system equipment. The effort includes the Solid Rocket Motor (SRM) Modernization effort to define operational requirements, investigate available technologies and prepare an acquisition strategy for SRM development. This effort, coupled with the Propulsion Application Program under PE 0603851F, ICBM Demonstration/Validation, will support development of requirements and implementation timeline for a follow-on SRM program. In FY 2015, new efforts related to the Operational Equipment will start under PE 0101213F, Minuteman Squadrons, Project 672987, MM Ops Equip.

This program is Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	135.437	145.442	88.651	-	88.651
Current President's Budget	120.375	112.760	-	-	-
Total Adjustments	-15.062	-32.682	-88.651	-	-88.651
• Congressional General Reductions	-0.178	-27.682			
• Congressional Directed Reductions	-	-5.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.732	-			
• Other Adjustments	-11.152	-	-88.651	-	-88.651

Change Summary Explanation

FY 2013 funding reflects a decrease of \$11.152M due to sequestration and a decrease of \$0.178M due to Congressional reductions.

FY 2014 reflects a decrease of \$32.682M due to Congressional reductions.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	
FY 2015 reflects PTR funding elimination in the amount of \$17.180M and a reduction in TERP in the amount of \$12.963M. Also, funding reflects a transfer of funding from PE 0604851F to PE 0101213F in the amount of \$58.508M.		

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655037 / <i>Support Equipment</i>
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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
655037: <i>Support Equipment</i>	-	84.784	81.744	-	-	-	0.001	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note
In FY 2015, Project 655037, Support Equipment, efforts were transferred to PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip, and Project 672984, MM III Baseline Support in order to consolidate ICBM investment activities under a common PE.

A. Mission Description and Budget Item Justification
The Support Equipment program designs, develops, and tests replacement of obsolete/non-serviceable weapon system support and flight test equipment. The efforts include design, development, and testing of support equipment such as Electrical-Electronic Equipment Test Sets (EEETS), Reentry Field Support Equipment (RFSE), Code System Media (CSM), Payload Transporter Replacement (PTR), Higher Authority Command/Rapid Message Processing Element (HAC/RMPE) Message Generator, Strategic Targeting Application Computer System (STACS), and Transporter Erector Replacement Program (TERP). In FY15, efforts listed above in PE 0604851F, Intercontinental Ballistic Missile - EMD, Project 655037, Support Equipment will be included in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip. Also in FY15, PTR funding was eliminated pending revalidation of the requirement through an ICBM Transportation Security Study due July 2014. PTR development will continue in FY14.

Efforts also include the design, development, and testing of replacement flight test equipment necessary to conduct Force Development Evaluations (FDEs) and ICBM Fuze Modernization flight tests such as the Instrumentation Wafer Replacement Program (IWRP) and the Signal Conditioner Monitor (SCM) replacement program. FDEs are required by USSTRATCOM and the Department of Energy to determine continuing reliability and effectiveness of the ICBM weapon system. Beginning in FY 2015, IWRP and SCM efforts previously included in PE 0604851F, Intercontinental Ballistic Missile - EMD, Project 655037, Support Equipment will be included in PE 0101213F, Minuteman Squadrons, Project 672984, MM III Baseline Support as one combined program, the MM III Instrumentation Wafer Replacement Program (MMIWRP).

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

	FY 2013	FY 2014	FY 2015
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Title: Electrical-Electronic Equipment Test Set (EEETS)	4.750	-	-
Description: Design and develop the EEETS used for production and pre-launch checkout of Mod 7 Instrumentation Wafer required to conduct flight tests and Force Development Evaluations. The Mod 7 Instrumentation Wafer provides transmission of missile telemetry and receipt of command destruct messages during flight. The program will replace the current unsupported test set which consists of a non-standard processor, proprietary software, and requires Digital-to-Analog Converter cards no longer available (no suitable substitute).			

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Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655037 / <i>Support Equipment</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
<p><i>FY 2013 Accomplishments:</i> Completed design, development, fabrication and testing of EEETS. Installed, tested, audited and verified units at flight test and contractor repair facilities. EEETS effort is expected to complete in FY14.</p>				
<p><i>Title:</i> Reentry Field Support Equipment (RFSE)</p> <p><i>Description:</i> 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.</p> <p><i>FY 2013 Accomplishments:</i> Continued design, development, fabrication and testing of RFSE units. Continued Independent Verification and Validation (IV&V) activities.</p> <p><i>FY 2014 Plans:</i> Continue design, development, fabrication and testing of RFSE units. Continue IV&V activities. Conduct Test Readiness Review (TRR) and configuration audits.</p> <p><i>FY 2015 Plans:</i> Reflected in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip.</p>		44.923	38.990	-
<p><i>Title:</i> Code System Media (CSM)</p> <p><i>Description:</i> 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 expires in 2015. CSM delivers the capability to load codes/software on Minuteman III ICBMs through 2030 and is critical to code change activities.</p> <p><i>FY 2013 Accomplishments:</i> Continued design, development, and testing of CSM software. Conducted Segment #2 TRR. Continued Nuclear Surety Cross Check Analysis (NSCCA) activities. Continued design, development and testing of the DTU.</p> <p><i>FY 2014 Plans:</i></p>		11.129	11.034	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
<p>Continue design, development, fabrication and testing of CSM software. Conduct Segment #2 configuration audits. Receive deployment authorization for Segment #2. Continue NSCCA activities. Continue design, development, and testing of DTU. Conduct PDR and CDR for DTU.</p> <p>FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip.</p>				
<p>Title: Payload Transporter Replacement (PTR)</p> <p>Description: Designs and develops the capabilities necessary to replace the current Payload Transporter (PT) tractor and trailer, mitigating emerging threat technologies and methods. The PT emplaces, extracts, and transports the Minuteman III Reentry System (RS), Propulsion System Rocket Engine (PSRE), and Missile Guidance Set (MGS). The new PT design increases safety and security during transport activities and improves maintenance operations.</p> <p>In FY15, PTR funding was eliminated pending revalidation of the requirement through an ICBM Transportation Security Study due July 2014. PTR development will continue in FY14.</p> <p>FY 2013 Accomplishments: Continued design, development, fabrication and testing of PTR. Conducted a successful System Functional Review (SFR) and Preliminary Design Review (PDR).</p> <p>FY 2014 Plans: Continue design, development, fabrication and testing of PTR. Conduct a successful Critical Design Review (CDR).</p> <p>FY 2015 Plans: In FY15, PTR funding was eliminated pending revalidation of the requirement through an ICBM Transportation Security Study due July 2014.</p>		9.022	10.000	-
<p>Title: Higher Authority Command/Rapid Message Processing Element (HAC/RMPE) Message Generator</p> <p>Description: Designs and develops the replacement for the Higher Authority Command/Rapid Message Processing Element (HAC/RMPE) Message Generator due to obsolescence and unsupportability for repair. The Message Generator is required to test and maintain the HAC/RMPE capability to receive, process and handle command and emergency action messages for Minuteman III command and control. This program will replace the test support equipment with a modern, sustainable common platform and standard interfaces.</p> <p>FY 2013 Accomplishments:</p>		2.700	1.000	-

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Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655037 / <i>Support Equipment</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Continued design, development, fabrication and testing of HAC/RMPE Message Generator. Conducted a successful CDR. Completed developmental testing. FY 2014 Plans: Complete design, development, fabrication and testing of HAC/RMPE Message Generator. Conduct a Test Readiness Review (TRR), Formal Qualification Test (FQT), and a Functional Configuration Audit (FCA). HAC/RMPE Message Generator effort is expected to complete in FY14.				
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 unsupported. 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. FY 2013 Accomplishments: Continued design and development activities. Conducted a successful Systems Requirements Review (SRR) and Technical Interchange Meetings (TIMs). Conducted a successful PDR. FY 2014 Plans: Continue design and development activities. Conduct a successful CDR and TRR. FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip.		4.300	4.300	-
Title: Transporter Erector Replacement Program (TERP) 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. FY 2013 Accomplishments: Began design, development, fabrication and testing of replacement TE. Approved Milestone B. Awarded the Engineering and Manufacturing Development (EMD) contract. FY 2014 Plans:		7.960	14.081	-

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Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655037 / <i>Support Equipment</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014	FY 2015
Continue design, development, fabrication and testing of replacement TE. Conduct a successful PDR and CDR and begin first article build. FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672985, MM Support Equip.			
Title: Instrumentation Wafer Replacement Program (IWRP) Description: Design and develop replacement for the Mod 7 Instrumentation Wafer. The instrumentation wafer transmits missile performance telemetry and position data and receives command destruct messages during missile flight tests and evaluations. The IWRP is needed to mitigate the risk of postponing Minuteman 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. FY 2014 Plans: Begin design, development, fabrication and test of the replacement wafer, determine specific Commercial Off-the-Shelf components and begin review of all Range Safety requirements. FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672984, MM III Baseline Support.	-	1.339	-
Title: Signal Conditioner Monitor (SCM) Description: Design and develop replacements for the Signal Conditioner Monitor (SCM), Missile Discrete Monitor (MDM) and associated cabling required to capture RS performance data during Force Development Evaluation (FDE) and developmental flight tests. The SCMG provides telemetry data on the RS and monitors RS discrete signals for post flight analysis. FY 2014 Plans: Begin design, development, fabrication and test of SCMG replacement components. FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672984, MM III Baseline Support.	-	1.000	-
Accomplishments/Planned Programs Subtotals	84.784	81.744	-

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: BA07: 0101213F: <i>Minuteman Squadrons</i>	-	-	139.109	-	139.109	173.067	206.749	235.276	232.633	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655037 / <i>Support Equipment</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>
• MPAF: BA05: Line Item # 00099L: <i>Missile Replacement Equipment - Ballistic</i>	25.094	38.385	80.187	-	80.187	84.156	47.261	42.543	43.038	Continuing	Continuing

Remarks

Project 6055037, 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 started before FY13 are predominately executed through the ICBM Prime Integration Contract (IPIC) using Cost Plus Incentive Fee (CPIF) contract addendums. Industry development efforts starting in FY13 will be executed through contracts available under the Future ICBM Acquisition and Sustainment Construct (FISAC) or competitive source selections. NSCCA and 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

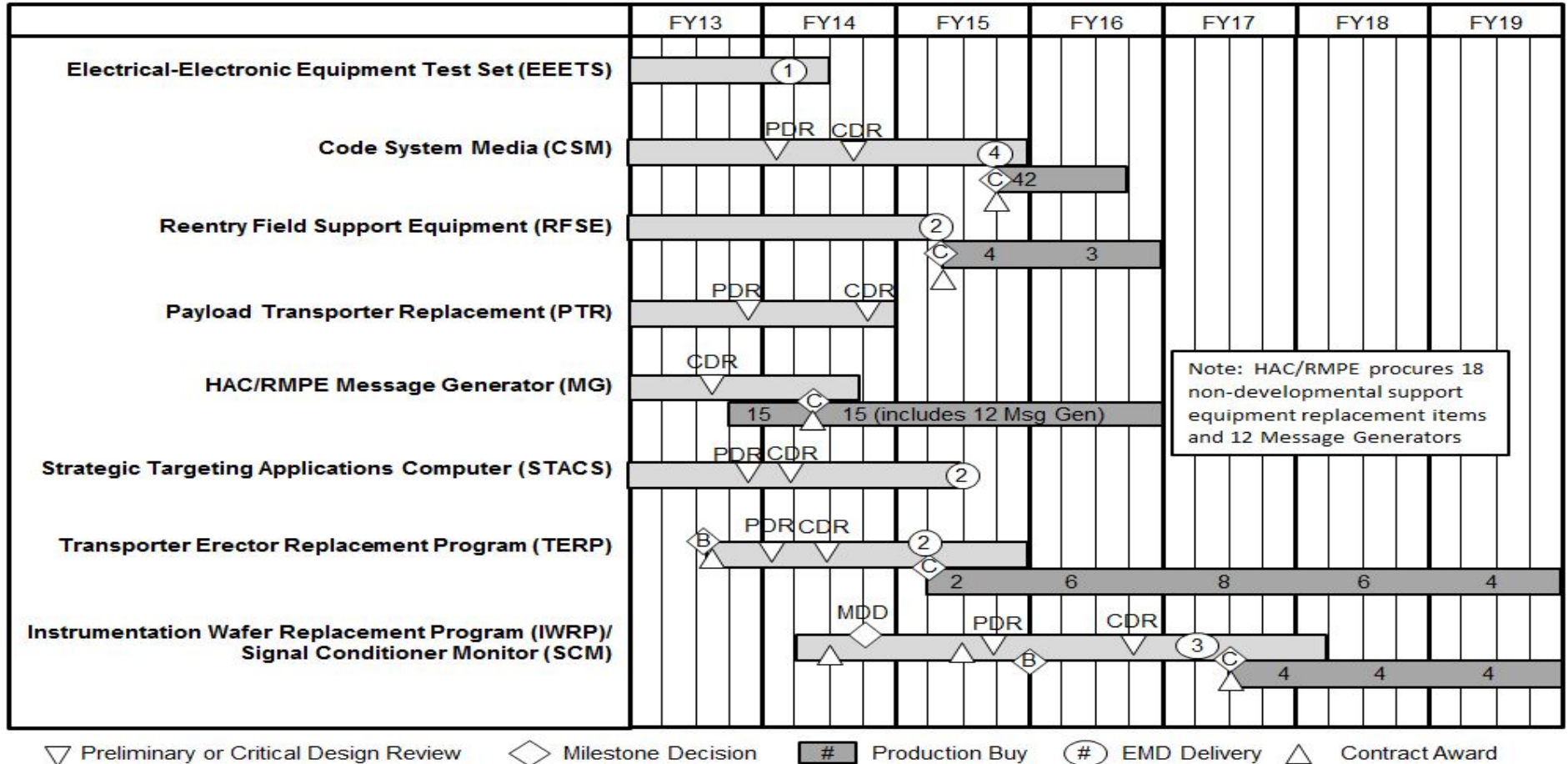
Date: March 2014

Appropriation/Budget Activity
3600 / 5

R-1 Program Element (Number/Name)
PE 0604851F / Intercontinental Ballistic
Missile - EMD

Project (Number/Name)
655037 / Support Equipment

Support Equipment



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655081 / <i>ICBM Crypto</i>
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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
655081: <i>ICBM Crypto</i>	-	28.481	31.016	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note
In FY 2015, Project 655081, ICBM Crypto, efforts were transferred to PE 0101213F, Minuteman Squadrons, Project 672986, MM Crypto Mods in order to consolidate ICBM investment activities under a common PE.

A. Mission Description and Budget Item Justification
Intercontinental Ballistic Missile (ICBM) Cryptography Upgrade Increment II (ICU II) executes USSTRATCOM, Air Force Global Strike Command (AFGSC), and Nuclear Weapon Safety Center (NWSC) requirements by implementing the KS-60 capabilities of remote key/code change and irreversible transformation as mandated in the approved Capabilities Development Document (CDD) dated 4 January 2005 and addresses Nuclear Weapon System Safety Group Operational Safety Review (NWSSG OSR) 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 (LF) and 45 launch control centers (LCC).

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

	FY 2013	FY 2014	FY 2015
Title: ICBM Crypto Upgrade Increment II (ICU II)	28.481	31.016	-
Description: ICBM Cryptography Upgrade II completes design and development, implements KS-60 remote key/code change, irreversible transformation capabilities, and prevents continuous signal lockout.			
FY 2013 Accomplishments: Continued A4 Drawer hardware development. Conducted a successful A4 Drawer Preliminary Design Review (PDR). Continued development of Operational Ground Program (OGP), Console Operations Program (COP), Wing Code Processing System (WCPS) Minuteman Applications Program (WMAP) and Strategic Air Command Code Processing System (SCPS) Application Program (SAP) software development. Conducted software PDRs and Critical Design Reviews (CDRs). Continued development of trainer modifications. Continued Nuclear Surety Cross Check Analysis/Performance Analysis and Technical Evaluation (NSCCA/PATE) activities for nuclear surety and safety.			
FY 2014 Plans: Continue A4 Drawer development and conduct Critical Design Review (CDR) and Test Readiness Review (TRR). Begin qualification testing. Continue OGP, COP, WMAP, and SAP software development. Conduct hardware and software			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014	FY 2015
Developmental Test and Evaluation. Continue development of trainer modifications. Complete NSCCA/PATE activities for nuclear surety and safety.			
FY 2015 Plans: Reflected in PE 0101213F, Minuteman Squadrons, Project 672986, MM Crypto Mods.			
Accomplishments/Planned Programs Subtotals	28.481	31.016	-

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: BA 07: PE 0101213F: <i>Minuteman Squadrons</i>	-	-	139.109	-	139.109	173.067	206.749	235.276	232.633	Continuing	Continuing
• MPAF: BA 05: Line Item # M30MLG: <i>Minuteman III Modifications</i>	48.404	2.586	16.707	-	16.707	51.959	102.872	59.390	61.084	Continuing	Continuing
• MPAF: BA 04: Line Item # 000999: <i>Initial Spares/Repair Parts</i>	1.208	-	12.938	-	12.938	-	0.397	7.998	0.199	Continuing	Continuing

Remarks
Project 6055081, ICBM Crypto, is related to only a portion of RDT&E and MPAF funding in Other Program Funding Summary.

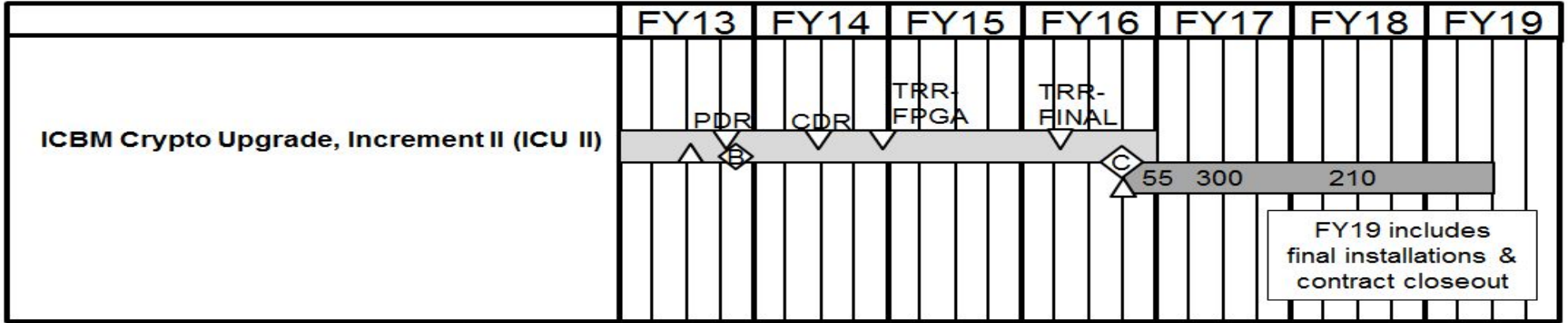
D. Acquisition Strategy
The ICBM Cryptography Upgrade (ICU) II Program utilizes the ICBM Prime Integration Contract (IPIC) services of Northrop Grumman (NG), which were competitively awarded, for the design and development of the ICU II capability. The contract type of the ICU II Engineering and Manufacturing 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 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 655081 / <i>ICBM Crypto</i>

ICU II



FY19 includes
final installations &
contract closeout

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

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 657010 / <i>Operational Equipment</i>
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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
657010: <i>Operational Equipment</i>	-	7.110	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

The Operational Equipment program designs, develops, and tests replacement of weapon system equipment. The effort includes the Solid Rocket Motor (SRM) Modernization which will define operational requirements, investigate available technologies and prepare an acquisition strategy for SRM development. This effort, coupled with Propulsion Application Program under PE 0603851F, ICBM Demonstration/Validation, and MM Operational Equipment under PE 0101213F, Minuteman Squadrons, 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: Solid Rocket Motor (SRM) Modernization	7.110	-	-
Description: Effort will focus on reducing the total ownership cost of the Minuteman III weapon system by utilizing technologies developed in the Intercontinental Ballistic Missile Propulsion Applications Program to modernize the Minuteman III booster stack to address maintenance and obsolescence issues realized in the legacy system.			
FY 2013 Accomplishments: Accomplished studies to investigate the application of new technologies into the Minuteman III booster stack. Evaluated current Minuteman III solid rocket motor requirements and update as required based on legacy system issues and availability of mature technology that will reduce total ownership costs.			
Accomplishments/Planned Programs Subtotals	7.110	-	-

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: <i>ICBM - Dem/Val</i>	63.153	72.696	30.885	-	30.885	18.029	16.237	9.916	9.889	Continuing	Continuing
• RDTE: BA07: PE 0101213F: <i>Minuteman Squadrons</i>	-	-	139.109	-	139.109	173.067	206.749	235.276	232.633	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 657010 / <i>Operational Equipment</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>
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Remarks

Project 657010, Operational Equipment, is related to only a portion of PE 0603851F, ICBM - Dem/Val and PE 0101213F, Minuteman Squadrons in Other Program Funding Summary.

D. Acquisition Strategy

SRM Modernization will conduct pre-acquisition efforts in conjunction with ongoing ICBM Demonstration/Validation Propulsion Application Program efforts maturing SRM technologies. As these efforts are conducted and results from SRM aging and surveillance activities and Ground Based Strategic Deterrent (GBSD) Analysis of Alternatives become available, a follow-on SRM Modernization strategy will be established.

FY13 SRM Modernization funding will be disbursed using two contract vehicles. The first contract will utilize Hill AFB's Design Engineering Support Program (DESP III). This will be a competitive 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) GSA contract which is a Firm Fixed Price (FFP) 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 / 5	R-1 Program Element (Number/Name) PE 0604851F / <i>Intercontinental Ballistic Missile - EMD</i>	Project (Number/Name) 657010 / <i>Operational Equipment</i>

Operational Equipment

	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Solid Rocket Motor (SRM) Modernization							

Preliminary or Critical Design Review
 Milestone Decision
 Production Buy
 EMD Delivery
 Contract Award