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* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*							
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	-	19.509	18.481	81.035	-	81.035	72.301	20.270	0.937	0.954	Continuing	Continuing
672832: *MEECN System Improvements*	-	0.799	0.873	0.860	-	0.860	0.901	0.919	0.937	0.954	Continuing	Continuing
676029: *Global Aircrew Strategic Network Terminal*	-	18.710	17.608	80.175	-	80.175	71.400	19.351	-	-	Continuing	Continuing

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

A. Mission Description and Budget Item Justification

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future requirements/issues based on available technology. MSI is used to conduct technology testing, analyze technology strategies and build technology roadmaps as pro-active support to the Nuclear Command, Control, and Communications (NC3) community.

Global Aircrew Strategic Network Terminal (Global ASNT) replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs) and Force Management messages from NC2 nodes and disseminate them to bomber, tanker, and reconnaissance aircrews. Global ASNT will be fielded in separate capability increments; Increment 1 fields required EHF/AEHF capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals. Subsequent increments will deliver: an Aircrew Alerting System (AAS) consisting of pagers and klaxons; High Frequency (HF) and Ultra High Frequency (UHF) capabilities; and a Very Low Frequency (VLF)/Low Frequency (LF) receive capability. Global ASNT will provide solutions to existing capability shortfalls for NC2 and is the last line of operational communications when all other peacetime links fail.

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* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*

This program is in Budget Activity 07, 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 years.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	20.124	36.288	53.441	-	53.441
Current President's Budget	19.509	18.481	81.035	-	81.035
Total Adjustments	-0.615	-17.807	27.594	-	27.594
• Congressional General Reductions	-0.026	-0.100			
• Congressional Directed Reductions	-	-17.707			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.572	-			
• Other Adjustments	-0.017	-	27.594	-	27.594

Change Summary Explanation

FY13 reduction of -$.017M for Sequestration

FY14 reduction includes -$17.707M Congressional mark for GASNT program delays and -$.100M for FFRDC

FY15 increase of $27.594M for Global ASNT Engineering and Manufacturing Development (EMD) activities.

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 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	Project (Number/Name) 672832 / *MEECN System Improvements*	

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
672832: *MEECN System Improvements*	-	0.799	0.873	0.860	-	0.860	0.901	0.919	0.937	0.954	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

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future requirements/issues based on available technology. MSI is used to conduct technology testing, analyze technology strategies, and build technology roadmaps as pro-active support to the Nuclear Command, Control, and Communications (NC3)community.

Very Low Frequency/Low Frequency (VLF/LF) receivers are currently used as one of the means for secure/survivable connectivity from the President to strategic forces. Over the years, the AF and Navy have pursued their own VLF products, which meet the unique application and environmental situations for each platform. MSI is investigating the technical feasibility of a future common core of processing hardware and software that supports all VLF receiver platforms and associated waveforms. MSI will perform risk reduction, and analyze requirements and technologies for future replacement efforts.

This program is in Budget Activity 07, 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 years.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: MEECN System Improvements	0.799	0.873	0.860
Description: Conduct NC3 technology testing, build comprehensive technology strategies and roadmaps. Conduct VLF/LF tradeoff analysis.			
FY 2013 Accomplishments: Refreshed NC3 Architecture Roadmap. Electromagnetic Interference (EMI) Platform Testing. Completed Unified MEECN Mode (UMM) Phase I. Continued Common VLF Receiver Trade-off Analysis.			
FY 2014 Plans: Refresh NC3 Architecture Roadmap.			

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 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 / *MEECN System Improvements*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Model and Simulate Platform EMI results. Perform VLF Antenna analysis. Continue Common VLF Receiver Trade-off analysis. ***FY 2015 Plans:*** Refresh NC3 Architecture Roadmap. Continue Common VLF Receiver Trade-off analysis.			
Accomplishments/Planned Programs Subtotals	0.799	0.873	0.860

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
• N/A: *None*	-	-	-	-	-	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

Johns Hopkins University (JHU) Applied Physics Lab (APL) is on contract to provide inputs to the NC3 Roadmap. This effort is a "time and materials" type 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.

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 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 / *MEECN System Improvements*

MSI Schedule

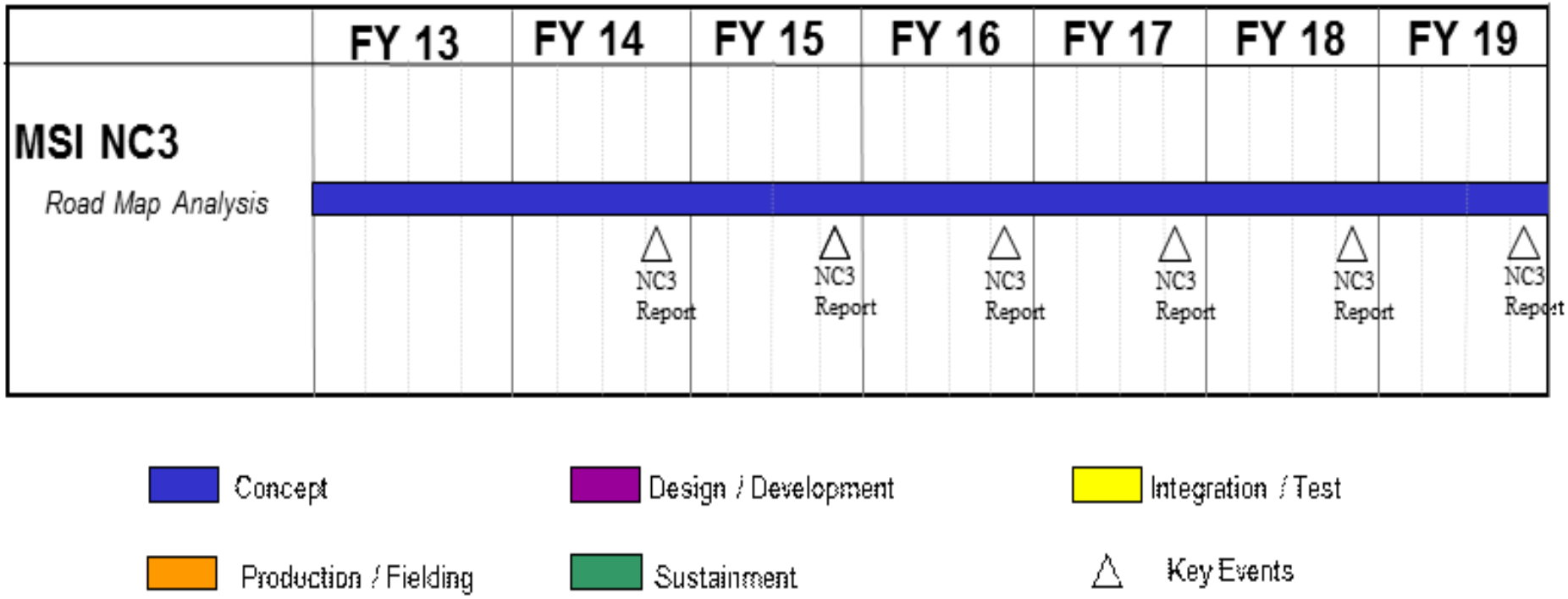

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	Project (Number/Name) 676029 / *Global Aircrew Strategic Network Terminal*	

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
676029: *Global Aircrew Strategic Network Terminal*	-	18.710	17.608	80.175	-	80.175	71.400	19.351	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	7.000	-	7.000	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Global Aircrew Strategic Network Terminal (Global ASNT) replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs) and Force Management messages from NC2 nodes and disseminate them to bomber, tanker, and reconnaissance aircrews. Global ASNT will be fielded in separate capability increments; Increment 1 fields required EHF/AEHF capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals. Subsequent increments will deliver: an Aircrew Alerting System (AAS) consisting of pagers and klaxons; High Frequency (HF) and Ultra High Frequency (UHF) capabilities; and a Very Low Frequency (VLF)/Low Frequency (LF) receive capability. Global ASNT will provide solutions to existing capability shortfalls for NC2 and is the last line of operational communications when all other peacetime links fail.

This program is in Budget Activity 07, 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 years.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: Engineering & Manufacturing Development (Global ASNT)	18.710	17.608	80.175
Description: Engineering & Manufacturing Development (EMD). ***FY 2013 Accomplishments:*** Released Request for Proposal (RFP), conducted technical evaluation in preparation for Increment 1 EMD contract. Awarded EMD contract 23 Dec 13. ***FY 2014 Plans:*** Conduct Integrated Baseline Review (IBR) and System Requirements Review (SRR). Begin Engineering and Manufacturing Development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software. ***FY 2015 Plans:***			

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 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 676029 / *Global Aircrew Strategic Network Terminal*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Conduct Preliminary Design Review (PDR) and Critical Design Review (CDR). Continue development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software.			
Accomplishments/Planned Programs Subtotals	18.710	17.608	80.175

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
• OPAF: BA03: Line item # 834210: *Global ASNT*	-	-	1.289	-	1.289	74.765	167.875	106.981	30.250	Continuing	Continuing

Remarks

D. Acquisition Strategy

Global ASNT used a full and open competitive source selection to award an EMD contract for Increment 1. Global ASNT will continue to use a competitive incremental approach to fulfill the overall requirements of the program for Increments 2 and 3.

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-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 676029 / *Global Aircrew Strategic Network Terminal*

Global ASNT Schedule