

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

## BUDGET ACTIVITY

## 07 - Operational System Development

## PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	5,536	2,396	10,716	37,620	49,377	37,585	24,422	14,883	Continuing	TBD
2832 MEECN System Improvements	1,407	1,138	1,406	1,446	1,459	1,487	1,509	1,529	Continuing	TBD
4521 DIRECT	3,757	871	285	286	299	303	307	311	Continuing	TBD
4610 Minuteman MEECN Program (MMP)	372	387	285	5,852	20,480	30,986	17,745	8,100	Continuing	TBD
5047 Ground Element MEECN System (GEMS)	0	0	8,740	30,036	27,139	4,809	4,861	4,943	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

In FY 2004, Project 2832 was renamed to MEECN System Improvements to better depict on-going efforts. In FY04, Project 5047, GEMS, is a new start effort.

(U) **A. Mission Description**

Minimum Essential Emergency Communications Network (MEECN) systems provide assured communications connectivity between the President and the strategic deterrent forces.

Currently these systems include:

- The Modified Miniature Receive Terminal (MMRT), that provides High Data Rate (HIDAR) capability for E-4B and E-6B aircraft,
- Defense Improved Emergency Message Automated Transmission System (IEMATS) Replacement Command and Control Terminals (DIRECT),
- Minuteman MEECN Program (MMP) - is the combination of Minuteman ICBM Launch Control Center (LCC) VLF/LF upgrade efforts with Minuteman ICBM Extremely High Frequency (EHF) band communications capability efforts.
- Ground Element MEECN System (GEMS) - a secure, survivable inter-site, intra-site and mobile EHF communications to bomber, tanker and other communication facilities with strategic responsibilities.

Future capability will include Advanced EHF (AEHF) on MMP and Ground Element MEECN Systems (GEMS).

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0303131F Minimum Essential Emergency  
Communications Network (MEECN)(U) **B. Budget Activity Justification**

This program is in Budget Activity 07 - Operational System Development, because it supports work on currently fielded operating weapon systems.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	5,923	2,423	2,011	TBD
(U) Appropriated Value	5,982	2,423		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-59	-27		
b. Small Business Innovative Research	-360			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions	-27			
(U) Adjustments to Budget Years Since FY 2003 PBR			8,705	
(U) Current Budget Submit/FY 2004 PBR	5,536	2,396	10,716	TBD
(U) <b><u>Significant Program Changes:</u></b>				
FY04 increase due to the GEMS program starting 1 year earlier.				

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0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

2832

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
2832 MEECN System Improvements	1,407	1,138	1,406	1,446	1,459	1,487	1,509	1,529	Continuing	TBD

In FY2004, Project 2832 was renamed MEECN System Improvements to better depict on-going efforts.

(U) **A. Mission Description**

This project's effort support the design and development of the Modified Miniature Receive Terminal (MMRT) program. The program modifies the Miniature Receive Terminal (MRT) to provide High Data Rate (HIDAR) capability on the E-4B, National Airborne Operations Center (NAOC) and the E-6B, Take Charge and Move Out (TACAMO) aircraft. The MMRT Very Low Frequency/Low Frequency receivers are fully interoperable satisfying both Air Force and Navy requirements.

This project also funds the airborne segment of the Communications Evaluation Program (CEP) for technical analysis of the currently fielded Command, Control, and Communication (C3) systems. CEP is a key factor in determining Assured MEECN Interoperability (AMI). The program implements a detailed test program for Emergency Action Message (EAM) insertion and reception. It conducts multiple evaluations on a continuing year-round basis. Following test data collection, analysis is performed to ensure the strategic communication systems meet JCS-directed platform connectivity requirements. The purpose of the program is to test the strategic C3 system to establish a quantitative system-wide performance baseline, conduct trend analysis, integrate new systems into the strategic C3 system, identify system deficiencies, recommend solutions and verify the effectiveness of corrective actions, and recommend and develop procedures in order to improve overall system performance.

Trade-off analysis is also performed to identify benefits and drawbacks of maintaining current systems. Studies are conducted to monitor communications system technology and potential integration complexities into current and future capabilities. Studies are conducted to assess the use of current communications terminals capability to support future requirements. The MEECN architecture is currently evaluating/planning modernization of the VLF/LF cryptographic capability, application of using DIRECT in mobile configurations (E-4, E-6 and Mobile Consolidated Command Center (MCCC)) and application of HIDAR VLF/LF in other strategic communications platforms.

## Budget Activity Justification:

This program is in Budget Activity 07 - Operational System Development, because it supports work on currently fielded operating weapon systems.

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

2832

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$1,407 Continued Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$1,407 Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$1,138 Continue Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$1,138 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$1,406 Continue Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$1,406 Total

(U) **B. Project Change Summary**

Reduced analysis of currently fielded strategic nuclear command and control systems..

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN										
(U) Aircraft Procurement - AF, (MEECN, PE 0303131F, BA-05, P-57)	6,995	4,655	0	0	0	0			0	36,897

(U) **D. Acquisition Strategy**

Modified Miniature Receive Terminal (MMRT) Program. Contract awarded in FY96 for the E-4B, National Airborne Operations Center (NAOC); E-6B, Take Charge and Move Out (TACAMO). CEP is an annual test and evaluation of currently fielded command and control systems.

Project 2832

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

2832

(U) E. Schedule Profile

		<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
		1	2	3	4	1	2	3	4	1	2	3	4
(U)	E-6B Initial Operational Capability (IOC)	*											
(U)	E-4B IOC			*									
(U)	E-4B Full Operational Capability (FOC)										X		
(U)	CEP Study and Analysis - Quarterly Report(s)				*	X	X	X	X	X	X	X	X
* Indicates completed task													
X Indicates planned task													

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003				
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
07 - Operational System Development				0303131F Minimum Essential Emergency Communications Network (MEECN)				2832			
(U) A. Project Cost Breakdown (\$ in Thousands)											
				FY 2002		FY 2003		FY 2004			
(U) Program Management Administration (PMA)				200		200		200			
(U) Johns Hopkins University: CEP Studies and Analysis				1,207		938		1,206			
(U) Total				1,407		1,138		1,406			
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
<u>Contractor or Government</u>		<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>		<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>											
Rockwell		SS/CPAF	Aug 92	13,500	13,500	13,500				0	13,500
Rockwell		SS/CPAF	Jul 96	49,238	49,238	49,338				0	49,338
TRW		SS/CPAF	Mar 99	16,093	16,093	16,093				0	16,093
JHU-APL (SPAWAR SysCen)		MIPR	Annual	N/A	N/A	4,826	1,207	938	1,206	Continuing	TBD
<u>Support and Management Organizations</u>											
SE/TA [SRC, ASEC, MCR ATT, SAFTAS]		Various	As Req'd.	2,976	2,976	2,976	0	0		0	2,976
MITRE		LOE	As Req'd.	131	131	131	0	0		0	131
PMA		Various	Annual	N/A	N/A	1,378	200	200	200	Continuing	TBD
ALCs		MIPR	As Req'd.	355	355	355				0	355
<u>Test and Evaluation Organizations</u>											
NavAir Warfare Center		MIPR	As Req'd.	5,554	5,554	5,554				0	5,554
AFOTEC		MIPR	As Req'd.	204	204	204				0	204
Project 2832											
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Exhibit R-3 (PE 0303131F)											

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## RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

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BUDGET ACTIVITY

07 - Operational System Development

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Communications Network (MEECN)

PROJECT

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(U) Government Furnished Property:

<u>Item</u>	<u>Contract</u> <u>Method/Type</u> <u>or Funding</u>	<u>Award or</u> <u>Obligation</u> <u>Date</u>	<u>Delivery</u> <u>Date</u>	<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
<u>Product Development Property</u>									
N/A				342					342
<u>Support and Management Property</u>									
N/A									
<u>Test and Evaluation Property</u>									
N/A									
<u>Subtotals</u>				<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
Subtotal Product Development				84,099	1,207	938	1,206	TBD	TBD
Subtotal Support and Management				4,840	200	200	200	TBD	TBD
Subtotal Test and Evaluation				5,758				0	5,758
Total Project				94,697	1,407	1,138	1,406	TBD	TBD

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4521

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4521 DIRECT	3,757	871	285	286	299	303	307	311	Continuing	TBD

(U) **A. Mission Description**

The Defense Improved Emergency Message Automatic Transmission System (IEMATs) Replacement Command and Control Terminal (DIRECT) is a Strategic Nuclear Command and Control (C2) system directly supporting the President, Secretary of Defense, and the Chairman of the Joint Chiefs of Staff (CJCS). DIRECT has formally replaced IEMATs, and ensures continued connectivity for the President and SecDef to build, transmit, receive, acknowledge, relay, and process Emergency Action Messages (EAMs) via the seven unified command centers to allow the CJCS and warfighters to remain responsive to the directives of the President and Secretary of Defense. This program will acquire system hardware for the seven unified command centers and a hardware facility. DIRECT is certified to Top Secret-Single Integrated Operational Plan (SIOP) messaging and reached Full Operational Capability (FOC) on 15 Feb 02. DIRECT will be compatible with the Defense Message System (DMS) or the directed DMS alternative as well as interface with all current and future EAM distribution communication systems. DIRECT will also expand, through DIRECT- to- Nova/Strategic Command and Control System (SACCS) interface, the User base for EAM dissemination due to the Automatic Digital Network (AUTODIN).

This project also funds the operational Command and Control Terminals segment of the Communications Evaluation Program (CEP) for technical analysis of the currently fielded Command, Control, and Communication (C3) systems. CEP is a key factor in determining Assured MEECN Interoperability (AMI). The program implements a detailed test program for EAM insertion and reception. It conducts multiple evaluations on a continual year-round basis. Following test data collection, analysis is performed to ensure the strategic communication systems meet JCS-directed platform connectivity requirements. The purpose of the program is to test the strategic C3 system to establish a quantitative system-wide performance baseline, conduct trend analysis, integrate new systems into the strategic C3 system, identify system deficiencies, recommend solutions and verify the effectiveness of corrective actions, and recommend and develop procedures in order to improve overall system performance. Trade-off analysis is also performed to identify benefits and drawbacks of maintaining current systems. Studies are conducted to monitor communication system technology and potential integration complexities into current and future capabilities.

## Budget Activity Justification:

This program is in Budget Activity 07 - Operational System Development, because it supports work on currently fielded operating weapon systems.

Project 4521

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4521

(U) **A. Mission Description Continued**(U) FY 2002 (\$ in Thousands)

(U) \$0 Accomplishments/Planned Program

(U) \$607 Continued EMD to develop interface between DIRECT and DMS.

(U) \$3,000 Development of MEECN Emergency Action Message (EAM) Hybrid Solution.

(U) \$150 Continued Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$3,757 Total

(U) FY 2003 (\$ in Thousands)

(U) \$0 Accomplishments/Planned Program

(U) \$693 Continue EMD to develop interface between DIRECT and DMS.

(U) \$178 Continue Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$871 Total

(U) FY 2004 (\$ in Thousands)

(U) \$0 Accomplishments/Planned Program

(U) \$195 Continue EMD to develop interface between Direct and DMS

(U) \$90 Continue Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$285 Total

(U) **B. Project Change Summary**

No significant changes.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN										
(U) Other Procurement - AF, (MEECN, PE 0303131F, BA-03, P-50)	2,002	1,061	0	0	0	0			0	22,975

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07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4521

(U) D. Acquisition Strategy

A SS/CPAF contract for EMD was awarded to GTE Government Systems (now General Dynamics-Communications Systems), Needham, MA on 12 Jul 96.

(U) E. Schedule ProfileFY 2002FY 2003FY 2004

	1	2	3	4	1	2	3	4	1	2	3	4
(U) CEP Study and Analysis - Quarterly Reports	*	*	*	*	X	X	X	X	X	X	X	X

\* Indicates completed task

X Indicates planned task

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## RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4521

(U) A. Project Cost Breakdown (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
(U) Prime Contract	3,364	569	195
(U) Program Management Administration (PMA)	113	59	
(U) SE/TA	130	65	
(U) CEP/Studies and Analysis	150	178	90
(U) Total	3,757	871	285

(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)(U) Performing Organizations:

<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Organizations</u>										
GTE	SS/CPAF	Jul 96	N/A	N/A	29,185	3,364	569	195	Continuing	TBD
National Security Agency (NSA)	MIPR	Annually	2,300	2,300	2,300				0	2,300
JHU-APL	LOE	Annual	N/A	N/A	249	150	178	90	Continuing	TBD
<u>Support and Management Organizations</u>										
SE/TA [ASEC, ABACUS, MCR, ATT, SAFTAS]	LOE	As Req'd.	N/A	N/A	2,942	130	65			3,137
MITRE	LOE	As Req'd.	N/A	N/A	2,668	0	0			2,668
PMA	Various	Annual	N/A	N/A	1,346	113	59			1,518
<u>Test and Evaluation Organizations</u>										
Various	Various	As Req'd.	N/A	500	471	0	0		0	471

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003	
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT	
07 - Operational System Development				0303131F Minimum Essential Emergency Communications Network (MEECN)			4521	
(U) <u>Government Furnished Property:</u>								
	<u>Contract</u>							
	<u>Method/Type</u>	<u>Award or</u>						
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
<u>Product Development Property</u>								<u>Total</u>
N/A								<u>Program</u>
<u>Support and Management Property</u>								
N/A								
<u>Test and Evaluation Property</u>								
N/A								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>				<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
Subtotal Product Development				31,734	3,514	747	285	TBD
Subtotal Support and Management				6,956	243	124		
Subtotal Test and Evaluation				471	0	0		0
Total Project				39,161	3,757	871	285	TBD

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07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4610

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4610 Minuteman MEECN Program (MMP)	372	387	285	5,852	20,480	30,986	17,745	8,100	Continuing	TBD

In FY 2003, Project 4610 was renamed to Minuteman MEECN Program (MMP) (formerly MEECN EHF). This action did not change program content .

(U) **A. Mission Description**

This project combines Minuteman ICBM Launch Control Center (LCC) Very Low Frequency/Low Frequency (VLF/LF) efforts with Minuteman ICBM Extremely High Frequency (EHF) band communications capability efforts. This MEECN project will provide reliable, secure, and survivable communications in the Extremely High Frequency (EHF) band. Specifically, this effort is currently focused on replacing the satellite-based, ground communication links with Minuteman ICBM forces. It supplants the ICBM Super High Frequency (SHF) Satellite Terminal (ISST) receipt, providing force direction/execution, and the Ultra High Frequency (UHF) report-back links. ISST relies upon the Single Channel Transponder (SCT) package aboard the Defense Satellite Communications System (DSCS). The SCT will not be flown on the DSCS after 2003. Extending the use of SCT aboard DSCS is not practical. The UHF links depend upon the Air Force Satellite Communications (AFSATCOM) packages hosted aboard the Fleet Satellite Communications (FLTSATCOM) satellites. FLTSATCOM satellites are past their life expectancy. MEECN EHF is required to meet redundancy standards established by national security directives.

This project also funds the operational ICBM Launch Control Center (LCCs) segment of the Communications Evaluation Program (CEP) for technical analysis of the currently fielded strategic Command, Control, and Communications (C3) systems. CEP is a key factor in determining Assured MEECN Interoperability (AMI). The program implements a detailed test program for Emergency Action Message (EAM) insertion and reception. It conducts multiple evaluations on continual year-round basis. Following test data collection, analysis is performed to ensure the strategic communications systems meet JCS-directed platform connectivity requirements. The purpose of the program is to test the strategic C3 system to establish a quantitative system-wide performance baseline, conduct trend analysis, integrate new systems into the strategic C3 system, identify system deficiencies, recommend solutions and verify the effectiveness of corrective actions, recommend and develop procedures in order to improve overall system performance. Trade-off analysis is also performed to identify benefits and drawbacks of maintaining current systems. Studies are conducted to monitor communications system technology and potential integration complexities into current and future capabilities.

Future capability will include upgrading MMP system to be compatible with Advanced EHF (AEHF).

## Budget Activity Justification:

This program is in Budget Activity 07 - Operational System Development, because it supports work on currently fielded operating weapon systems.

Project 4610

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4610

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands)**

(U) \$0 Accomplishment/Planned Program

(U) \$372 Continued Communications Evaluation Program (CEP) Studies and Analysis.

(U) \$372 Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0 Accomplishment/Planned Program

(U) \$387 MMP ECPs/AEHF Concept Development Studies

(U) \$387 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$0 Accomplishment/Planned Program

(U) \$285 Continue AEHF Concept Development Studies

(U) \$285 Total

(U) **B. Project Change Summary**

No significant changes.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN										
(U) MPAF, Missile Modifications (MEECN, PE 0303131F, BA 03, P-011)	53,300	33,037	33,287	15,846	2,893	0	0	0	0	154,709

(U) **D. Acquisition Strategy**

The ICBM Prime Integrating Contract (through OO-ALC, Hill AFB, UT) is being used as a contracting vehicle for the Minuteman MEECN Program (MMP).

(U) **E. Schedule Profile**FY 2002FY 2003FY 2004

Project 4610

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Exhibit R-2A (PE 0303131F)

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

February 2003

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4610

(U) E. Schedule Profile Continued

		<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
		1	2	3	4	1	2	3	4	1	2	3	4
(U)	AEHF Concept Development Studies										X		
(U)	MMP Milestone III Decision			*									
(U)	Procurement Option 2						X						
(U)	Start Missile Alert Facility Top-side Work							X					
(U)	MMP IOC											X	
* Indicates completed task													
X Indicates planned task													

## UNCLASSIFIED

## RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE

February 2003

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

4610

(U) **A. Project Cost Breakdown (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
(U) Prime Contract	372		
(U) Program Management Administration (PMA)			
(U) SE/TA			
(U) MITRE			
(U) JHU-APL		387	285
(U) Total	372	387	285

(U) **B. Budget Acquisition History and Planning Information (\$ in Thousands)**(U) **Performing Organizations:**

<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Organizations</u>										
TRW	SS/CPAF	Mar 99	45,812	45,812	45,812				0	45,812
JHU-APL	LOE	Annual	N/A	N/A	455	372	387	285	Continuing	TBD
<u>Support and Management Organizations</u>										
SE/TA [SRC, MCR, ATT, SAFTAS]	LOE	As Req'd.	N/A	N/A	826					826
MITRE	LOE	As Req'd.	N/A	N/A	695					695
PMA	Various	Annual	N/A	N/A	847					847
<u>Test and Evaluation Organizations</u>										

(U) **Government Furnished Property:**

<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003	
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT	
07 - Operational System Development				0303131F Minimum Essential Emergency Communications Network (MEECN)			4610	
(U) Government Furnished Property Continued:								
	<u>Contract</u>							
	<u>Method/Type</u>	<u>Award or</u>						
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
<u>Product Development Property</u>								
N/A								
<u>Support and Management Property</u>								
N/A								
<u>Test and Evaluation Property</u>								
N/A								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>				<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
Subtotal Product Development				46,267	372	387	285	TBD
Subtotal Support and Management				2,368				
Subtotal Test and Evaluation								
Total Project				48,635	372	387	285	TBD

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

5047

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
5047 Ground Element MEECN System (GEMS)	0	0	8,740	30,036	27,139	4,809	4,861	4,943	Continuing	TBD

In FY2004, Project 5047, GEMS, is a new start effort.

(U) A. Mission Description

Nuclear Command and Control Technical Performance Criteria require that communication facilities with strategic responsibilities receive emergency action messages (EAMs) and function as part of the strategic force. Ground Element MEECN Systems (GEMS) will be comprised of MILSTAR EHF/AEHF, VLF/LF, UHF and Aircrew Alerting components and will provide secure, survivable inter-site, intra-site and mobile communications to bomber, tanker, reconnaissance and other communications facilities with strategic responsibilities. GEMS terminals will be developed and fielded to replace both mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals. GEMS will also replace the Aircraft Alerting Communications Electromagnetic Pulse System/Electromagnetic Pulse Hardened Dispersal Communications (AACE/EHDC) systems.

Budget Activity Justification:

This program is in Budget Activity 07 - Operational System Development, because it supports work on currently fielded operating weapon systems.

(U) FY 2002 (\$ in Thousands)

(U) \$0 No Activity

(U) \$0 Total

(U) FY 2003 (\$ in Thousands)

(U) \$0 No Activity

(U) \$0 Total

(U) FY 2004 (\$ in Thousands)

(U) \$3,100 Begin Interface Development

(U) \$600 Aircrew Alerting Component Hardening and Integration

(U) \$5,040 Communication Systems Definition/Prototyping

(U) \$8,740 Total

Project 5047

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

5047

(U) **B. Project Change Summary**

FY 04 funds were added in order to begin GEMS 1 year earlier.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN					37,427	120,953	76,400	21,600	Continuing	TBD
Other Procurement - AF, (MEECN, PE0303131F, BA-03, P-050)										

(U) **D. Acquisition Strategy**

Award of Systems Demonstration and Development (SDD) contract following full and open competition.

(U) **E. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Initiate SDD on Interface Development											X	
(U) Initiate System Design and Development on Communications Terminal Prot											X	

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## RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE

February 2003

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0303131F Minimum Essential Emergency  
Communications Network (MEECN)

PROJECT

5047

(U) A. Project Cost Breakdown (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
(U) Prime Contract			7,765
(U) ITSP			650
(U) PMA (SPO Support)			325
(U) Total			8,740

(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)(U) Performing Organizations:

<u>Contractor or</u> <u>Government</u> <u>Performing</u> <u>Activity</u>	<u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u>	<u>Award or</u> <u>Obligation</u> <u>Date</u>	<u>Performing</u> <u>Activity</u> <u>EAC</u>	<u>Project</u> <u>Office</u> <u>EAC</u>	<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
<u>Product Development Organizations</u>										
TBD	TBD	1QFY04	TBD	TBD				7,765	Continuing	TBD
<u>Support and Management Organizations</u>										
ITSP		As Req'd.	N/A	N/A				650	Continuing	TBD
PMA		Annual	N/A	N/A				325	Continuing	TBD
<u>Test and Evaluation Organizations</u>										

(U) Government Furnished Property:

<u>Item</u> <u>Description</u>	<u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u>	<u>Award or</u> <u>Obligation</u> <u>Date</u>	<u>Delivery</u> <u>Date</u>	<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
<u>Product Development Property</u>									
N/A									
<u>Support and Management Property</u>									
N/A									

Project 5047

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2003	
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
07 - Operational System Development		0303131F Minimum Essential Emergency Communications Network (MEECN)			5047	
(U) <u>Government Furnished Property Continued:</u>						
<u>Test and Evaluation Property</u>						
N/A						
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
<u>Subtotals</u>						<u>Total</u>
Subtotal Product Development					7,765	TBD
Subtotal Support and Management					975	TBD
Subtotal Test and Evaluation						
Total Project					8,740	TBD

Project 5047

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