**A. Mission Description and Budget Item Justification**

This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps’ acquisition system.

This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installation required for general research and development use.

**B. Program Change Summary ($ in Millions)**

<table>
<thead>
<tr>
<th></th>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012 Base</th>
<th>FY 2012 OCO</th>
<th>FY 2012 Total</th>
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<tr>
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<td>17.721</td>
<td>21.836</td>
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<tr>
<td>• Congressional General Reductions</td>
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<tr>
<td>• Congressional Directed Reductions</td>
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<td>• Congressional Rescissions</td>
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<tr>
<td>• Congressional Adds</td>
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<td>• Congressional Directed Transfers</td>
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**Congressional Add Details ($ in Millions, and Includes General Reductions)**

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<tr>
<th>Project: 9999: Congressional Adds</th>
<th>FY 2010</th>
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### Congressional Add Details ($ in Millions, and Includes General Reductions)

- Congressional Add: *Global Supply Chain Management*

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<tr>
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<tr>
<td>Congressional Add Subtotals for Project 9999</td>
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<td>Congressional Add Totals for all Projects</td>
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### Change Summary Explanation

- **Technical:** Not applicable.

- **Schedule:** Not applicable.
A. Mission Description and Budget Item Justification

Project funds Marine Corps Studies System (MCSS). Supports studies and analyses approved for execution in the annual Marine Corps Studies System Master Plan (MCSSMP) including mandated Mission Area Analyses (MAAs), Milestone A, and Pre-Milestone A (Conceptual) Analysis of Alternatives (AoAs), technology assessments, force structure analysis, weapons systems analysis, concept development and analysis, logistics, feasibility and cost benefits, training assessments, and scenario development. Supports the Marine Corps Logistics, the Expeditionary Force Development System (EFDS), and the Combat Development Process (CDP). Mission Area Analyses (MAA) provide quantitative and qualitative information utilized by decision makers to initiate improvements in operational concepts, doctrine, force structure, education, training, and procurement.

Provide analytical documentation and support to decision makers for resolution of current and future issues identified by operating forces. Utilize Marine Corps Research University to conduct studies and analysis projects in basic and applied research and advanced technology development. Provide funds to the Naval Sea Systems Command (NAVSEA) for direct support, technical analyses, and liaison services to assure a sound bridge between the Marine Corps' role in defining Expeditionary Warfare Specialist (EXW)/Seabasing requirements and the SEA 05 role for Future Concepts and Ships Designs for amphibious ships/aircraft, Maritime Prepositioning Force (Future)(MPF (F)), High Speed Connectors, and related systems. Space and Naval Warfare Systems Center (SPAWAR) funded to support Naval Assessment Program to modify and upgrade all DoN war fighting, crisis response and support capabilities and vulnerabilities and provide baseline of future capabilities. Baseline analysis supports Mission Capability Packages (MCPs), Investment Strategy, Joint Capability Areas (JCAs), and the Naval Strategic Plan providing the DoN assessments for future force development.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

<table>
<thead>
<tr>
<th>Title: Studies &amp; Analysis/MC</th>
<th>FY 2010</th>
<th>FY 2011</th>
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<tbody>
<tr>
<td>Articles:</td>
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<tr>
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<td>6.102</td>
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UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
BA 6: RDT&E Management Support

R-1 ITEM NOMENCLATURE
PE 0605873M: Marine Corps Program Wide Supt

PROJECT
0030: Studies & Analysis/MC

DATE: February 2011

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

<table>
<thead>
<tr>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive Hazard Capability Study: determined effective way of supporting explosive hazard reduction requirements for mobility operations within the Marine Air Ground Task Force (MAGTF) and identify the most appropriate placement of explosive ordnance disposal (EOD assets within Marine Corps Forces.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Force Mobility Analytical Support (FMAST) III - Follow-on study to FMASTII: capture Marine Corps Type 1 equipment in FMAST vice all vehicles and rolling stock, and generate the Measures of Effectiveness (MOE) for various MAGTFs. Combine information gathered in Tasks 1 and 2 Strategic Mobility, aggregate footprint (weight, area, and volume) relative to available strategic lift and Tactical Mobility.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Domain Analysis for Airspace Command and Control (C2): define Marine Aviation C2 Time Domain (TD) in quantifiable and measurable terms for the following: Real-Time (RT), Near-Real-Time (NRT), and Non-Real-Time (Non-RT), define Marine Aviation C2 Data Fusion (DF) requirements in quantifiable and measurable terms. Pythagoras II Counterinsurgency follow-on.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plans, Policy and Operations (PP&amp;O), Maritime Preposition Shipping (MPS) Load out Study for II Marine Expeditionary Force (MEF) and MAGTF Core Competencies (II MEF) Naval Expeditionary Warfare (NEXW) Assessment: assessed amphibious warfare capabilities and proficiency; enabling capabilities to support smaller scale MAGTF operations. Marine Corps Training and Advisory Group (MCTAG) Deployment Analysis Study: examine operational drivers affecting deployments and implications for MCTAG in coordinating, forming, training and equipping conventional advisor and training teams. F-35 aircraft Transition and Production Model: transition from AV-8 aircraft and F-18 aircraft squadrons to F-35 squadrons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmanned Aircraft Commander (UAC) Primary Military Occupational Specialty (PMOS) Program of Instruction (POI) Study: assessed sponsor-defined courses of action (COAs) for UAS Officer POI in terms of their effectiveness in sourcing the demand for VMU UAS Officers.</td>
<td></td>
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</tr>
<tr>
<td>Close Combat Missiles Methodology Study: developed a multi-attribute decision model to evaluate mixes of infantry anti-armor weapons for both state-on-state warfare (typified by a significant armored threat) and hybrid conflicts (typified by a negligible armored threat). Marine Air and Ground Tactical Forces (MAGTF) Officer's Training: research and analysis to identify knowledge gaps of officers being deployed to participate in MAGTF operations.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
BA 6: RDT&E Management Support

R-1 ITEM NOMENCLATURE
PE 0605873M: Marine Corps Program Wide Supt

PROJECT
0030: Studies & Analysis/MC

DATE: February 2011

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

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<thead>
<tr>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
</tr>
</thead>
</table>


Synthetic Theater Operations Research Model (STORM): with Marine Corps enhancements to STORM, STORM representative of full-spectrum capabilities of the joint force meeting the collaboration and integration goals of the Department of Defense (DoD) Modeling & Simulation (M&S) Strategic Vision.

Combat Sample Generator (COSAGE): enhanced and improved the (COSAGE) model to better represent ground combat in a joint, combined arms battlefield environment for 2015 and beyond. Initiate high priority studies and analyses projects approved in the FY2010 - FY2011 Marine Corps Studies System Master Plan (MCSSMP).

FY 2011 Plans:
Continue efforts initiated in previous years to include: Pythagoras II; Force Mobility Analysis Support Tool, (FMASTIII); Maintaining Marine Armor Capability until 2024; Synthetic Theater Operations Research Model (STORM); Combat Sample Generator (COSAGE); Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics; Trans Sahel; Intelligence Analysis; Improvised Explosive Device Statistics Aviation Crew Seat Ration Model (IED); Optimizing Deployment of Cargo Unmanned Aerial Systems (CUAS).

FY 11 New emerging study requirements:
Aviation Crew Seat Ration Model: Develop optimization model for crew capabilities; USMC Unmanned Aerial System (UAS) Cargo Capabilities: Optimizing the Deployment of Cargo Unmanned Aerial Systems in Logistical Support Missions at the Tactical Level. Project will develop an Excel-based decision aid for optimally deploying and employing Cargo Unmanned Aerial Systems (CUAS) in a theater of operations and assessing the risk associated with such operations. Intelligence Analysis: provide an assessment tool, which can be given to military personnel in order to screen and assess a person's capacity to perform higher-level cognitive thinking as it relates to intelligence analysis skills. USMC Counter Battery Radar Capabilities; Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics. Statistical Analysis of IED: develop program of data, statistical, geospatial, and text content research and analysis of events in the Combat Information Data Network Exchange (CIDNE) database to assist the U.S. Marine Corps (USMC) in managing the threats to Marines deployed in Afghanistan.
Initiate new studies based on USMC requirements and directed by Assistant Commandant, Marine Corps. Initiate the high priority studies and analyses projects approved in the FY2011 - FY2012 Marine Corps Studies System Master Plan (MCSSMP).

FY 2011 Plans:
Continue efforts initiated in FY 2011 to include: Joint External Analysis Analytical Support Contract. Professional Staff Analytical Services Contract specialized analysts to assist with JCIDS analyses.

Synthetic Theater Operations Research Model (STORM): with Marine Corps enhancements to STORM, STORM representative of full-spectrum capabilities of the joint force meeting the collaboration and integration goals of the Department of Defense (DoD) Modeling & Simulation (M&S) Strategic Vision.

Combat Sample Generator (COSAGE): enhance and improve the COSAGE model tool set to better represent ground combat in a joint, combined arms battlefield environment for 2015 and beyond.

USMC Unmanned Aerial System (UAS) Cargo Capabilities: Optimizing the Deployment of Cargo Unmanned Aerial Systems in Logistical Support Missions at the Tactical Level. Project will develop an Excel-based decision aid for optimally deploying and employing Cargo Unmanned Aerial Systems (CUAS) in a theater of operations and assessing the risk associated with such operations; Intelligence Analysis: provide an assessment tool, which can be given to military personnel in order to screen and assess a person's capacity to perform higher-level cognitive thinking as it relates to intelligence analysis skills. USMC Counter Battery Radar Capabilities; Command Control (C2) TECOM; Marine Air and Ground (MAGTF) Capabilities Metrics.

Statistical Analysis of IED: develop program of data, statistical, geospatial, and text content research and analysis of events in the Combat Information Data Network Exchange (CIDNE) database to assist the U.S. Marine Corps (USMC) in managing the threats to Marines deployed in Afghanistan.

Initiate new studies based on USMC requirements and directed by Assistant Commandant, Marine Corps. Initiate the high priority studies and analyses projects approved in the FY2012 - FY2013 Marine Corps Studies System Master Plan (MCSSMP).

<table>
<thead>
<tr>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
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</thead>
<tbody>
<tr>
<td>6.102</td>
<td>6.555</td>
<td>6.642</td>
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</table>
### Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy

**DATE:** February 2011

<table>
<thead>
<tr>
<th>APPROPRIATION/BUDGET ACTIVITY</th>
<th>R-1 ITEM NOMENCLATURE</th>
<th>PROJECT</th>
</tr>
</thead>
</table>

| C. Other Program Funding Summary ($ in Millions) | N/A |

| D. Acquisition Strategy | N/A |

| E. Performance Metrics | N/A |
A. Mission Description and Budget Item Justification
The Marine Corps Operational Test and Evaluation Activity (MCOTEA) supports the material acquisition process by managing the Marine Corps Operational Test (OT) programs for Acquisition Categories (ACAT) I through ACAT IV (less OT of manned aircraft) and performs other functions that may be directed by the Commandant of the Marine Corps. The primary purpose of Operational Test and Evaluation (OT&E) is to provide information to the Milestone Decision Authority (MDA) regarding the Operational Effectiveness (OE) and Operational Suitability (OS) of the system addressed at a decision point. MCOTEA must ensure that the Marines in the Operating Forces receive the very best possible equipment and support. MCOTEA must also ensure each system proposed for acquisition is tested adequately, evaluated objectively and reported independently.

Marine Corps Operational Test and Evaluation Activity (MCOTEA) is the only unit that provides the Marine Corps with required operational test and evaluation (OT&E) capability, ensuring the Marine Corps is compliant with laws and regulations, and ensuring that training and equipment are operationally effective, relevant, and suitable. Additionally, MCOTEA's early involvement, coordination, and oversight in developmental testing and evaluation of new combat and combat support systems ensures that our Marines are the best trained, and have the best equipment, with the lowest test costs for taxpayers. Finally, MCOTEA's support of rapid acquisitions ensures that Marines in the fight are supported with the newest and most advanced equipment, and that the Marine Corps is compliant with regulations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

<table>
<thead>
<tr>
<th>Title: MCOTEA</th>
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<th>FY 2011</th>
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</thead>
<tbody>
<tr>
<td>Articles:</td>
<td>3.816</td>
<td>3.681</td>
<td>4.000</td>
</tr>
</tbody>
</table>

**FY 2010 Accomplishments:**
MCOTEA 4 test Divisions; MAGTF, Grounds, Expeditionary and CSS had Testing done prior to MS C decisions, Full Rate Production (FRP) decisions, prior to fielding, and post-fielding as Follow On Test & Evaluation (FOT&E) as requested, though recent policy requires significant involvement even as early as Pre-MS A, which was accomplished.

**FY 2011 Plans:**
DOT&E/DON Policy initiatives broaden MCOTEA involvement in: focusing on starting early, being operationally realistic, and continuing throughout life cycle during the Operational and testing evaluation and will be Integrating Developmental and Operational Testing with Greater participation in Developmental Tests and RAM scoring conferences. It also will be Experimenting to learn impacts on capabilities. MCOTEA also plans on Evaluating mission context at time of fielding and Capabilities Testing while expanding use of Modeling & Simulation.

**FY 2012 Plans:**
| Title: MCOTEA ENHANCEMENT |
| FY 2012 Plans: |
Implement internal professional staff test and evaluation capability upgrades with advanced training in special testing methodologies. This will increase the critical in-house capability to determine unique testing sciences and evaluation methodologies needed for efficacy in tests and evaluations of urgent in-theater capabilities. Some examples are specialized day and night optics technologies; and, specialized electronic tests for communications and computer applications in command and control areas. MCOTEA's support of rapid acquisitions ensures that Marines in the fight are supported with the newest and most advanced equipment, and that the Marine Corps is compliant with regulations.

| Accomplishments/Planned Programs Subtotals | 3.816 | 3.681 | 7.944 |

C. Other Program Funding Summary ($ in Millions)
N/A

D. Acquisition Strategy
N/A

E. Performance Metrics
N/A
### A. Mission Description and Budget Item Justification

The Family of Incident Response Systems (FIRS) consists of equipment, systems, and services designed to provide Weapons of Mass Destruction (WMD) incident response forces the capabilities needed to effectively respond to a terrorist attack using Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE). The Family of Incident Response Systems meets the mission requirements for the detection; mass casualty decontamination; force protection; responder inter-agency interoperability; C4I; urban search and rescue; medical and general support requirements needed by these forces to mitigate the effects of a CBRNE terrorist attack. The Family of Incident Response Systems relies primarily on Commercial Off-The-Shelf/Non-Developmental Items (COTS/NDI) equipment and systems that meet the particular mission requirements of Consequence Management (CM). Nuclear, Biological, and Chemical (NBC) systems are adopted if they meet the CM mission requirements. The Family of Incident Response Systems (FIRS) R&D effort allows the program to keep abreast of emerging technologies in the commercial sector and address operational capability gaps that cannot be met by commercial items.

### B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

**Title:** FIRS: Reconnaissance Mission Area.  

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<tr>
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</table>

**FY 2010 Accomplishments:**

FIRS: Reconnaissance Mission Area includes: 1) began the assessment of emerging technologies for Toxic Industrial Chemical detection and identification in conjunction with the Department of Homeland Security and the Technical Support Working Group (TSWG) 2) completed the assessment of Hand-Held Biological Detection Systems 3) continued the transition of a Field Chemical Analytical Tool (GC/MS) 4) completed the testing and evaluation of a portable bio-aerosol sampler 5) continued the development and testing of the Chemical Biological Incident Response Force (CBIRF) Standoff Chemical Agent Detector.

**FY 2011 Plans:**

FIRS: Reconnaissance Mission Area includes: 1) complete the assessment of emerging technologies for Toxic Industrial Chemical detection and identification in conjunction with the Department of Homeland Security and the Technical Support Working Group (TSWG) 2) continue the transition of a Field Chemical Analytical Tool (GC/MS) 3) continue the development and testing of the Chemical Biological Incident Response Force (CBIRF) Standoff Chemical Agent Detector.

**FY 2012 Plans:**

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</table>
### B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

**FIRS: Reconnaissance Mission Area** includes: begin to field test the person portable Gas Chromatograph Mass Spectrometer (GC/MS) 2) begin development of the next generation Standoff Chemical Agent Detector 3) begin development of next generation field detectors.

**Title:** *FIRS: Search and Rescue (SAR) Mission Area.*

<table>
<thead>
<tr>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.300</td>
<td>0.150</td>
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</table>

**FY 2010 Accomplishments:**
FIRS: Search and Rescue (SAR) Mission Area includes: 1) continued the evaluation of SAR HazMat boots that can be decontaminated 2) continued evaluation of Commercial Off the Shelf (COTS) and emerging SAR tools.

**FY 2011 Plans:**
FIRS: Search and Rescue (SAR) Mission Area includes: 1) complete the evaluation of SAR HazMat boots that can be decontaminated 2) complete evaluation of Commercial Off the Shelf (COTS) and emerging SAR tools.

**Title:** *FIRS: Decontamination Mission Area*

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>0.300</td>
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</table>

**FY 2010 Accomplishments:**
FIRS: Decontamination Mission Area includes: 1) continued the development and evaluation of improved mass casualty decon equipment (flash heaters) and procedures.

**FY 2011 Plans:**
FIRS: Decontamination Mission Area includes: 1) complete the development and evaluation of improved mass casualty decon equipment (flash heaters) and procedures.

**Title:** *FIRS: C4I Mission Area*

<table>
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<th>FY 2010</th>
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<tbody>
<tr>
<td>0.150</td>
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**FY 2010 Accomplishments:**
FIRS: C4I Mission Area includes: 1) continued technology assessments 2) continued field user evaluations 3) continued development of prototypes.

**FY 2011 Plans:**
FIRS: C4I Mission Area includes: 1) complete technology assessments 2) complete field user evaluations 3) complete development of prototypes.

**Title:** *FIRS: Force Protection Mission Area*

<table>
<thead>
<tr>
<th>FY 2010</th>
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</table>

**UNCLASSIFIED**
### FY 2010 Accomplishments

**FIRS: Force Protection Mission Area includes:**
1. continued the transition of the Improved Level A Protective Ensemble developed in concert with Technical Support Working Group (TSWG)
2. completed the radiation hardness survey and assessment of COTS CM equipment
3. continued the development and validation of an electronic filter matrix from military and commercial filter testing data
4. completed the testing and evaluation of a hydration system in conjunction with the Army
5. continued the testing and evaluation of the M-53 mask as a system with Commercial Self Contained Breathing Apparatus and Powered Air Purifying Respirators.

**FY 2011 Plans:**

**FIRS: Force Protection Mission Area includes:**
1. complete the transition of the Improved Level A Protective Ensemble developed in concert with Technical Support Working Group (TSWG)
2. continue the development and validation of an electronic filter matrix from military and commercial filter testing data
3. complete the testing and evaluation of a hydration system in conjunction with the Army
4. complete the testing and evaluation of the M-53 mask as a system with Commercial Self Contained Breathing Apparatus and Powered Air Purifying Respirators.

**FY 2012 Plans:**

**FIRS: Force Protection Mission Area includes:**
1. continue the development and validation of an electronic filter matrix from military and commercial filter testing data
2. begin testing and certification of the next generation Improved Chemical Garment (NFPA Class 2)
3. testing of a new breathable lightweight chemical biological protective undergarment to NFPA Class 3
4. testing of the universal hose connection between the M53 mask and COTS existing commercial Powered Air Purifying Respirators

---

### FY 2010 Accomplishments: Medical Mission Area

**Title:** FIRS: Medical Mission Area includes:

1. continued development of a Standoff patient triage tool
2. completed the development and testing of gloves with increased dexterity.

**FY 2011 Plans:**

**FIRS: Medical Mission Area includes:** complete the development of a Standoff patient triage tool.

**FY 2012 Plans:**

**FIRS: Medical Mission Area includes:** complete the development of a Standoff patient triage tool.

---

### FY 2010 Accomplishments: General Support Mission Area

**Title:** FIRS: General Support Mission Area includes:

**FY 2011 Plans:**

**FIRS: General Support Mission Area includes:** complete the development of a Standoff patient triage tool.

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## FY 2011 Plans: Medical Mission Area

**Title:** FIRS: Medical Mission Area includes:

**FY 2011 Plans:**

**FIRS: Medical Mission Area includes:** complete the development of a Standoff patient triage tool.

---

## FY 2012 Plans: Medical Mission Area

**Title:** FIRS: Medical Mission Area includes:

**FY 2012 Plans:**

**FIRS: Medical Mission Area includes:** complete the development of a Standoff patient triage tool.

---

## FY 2010 Accomplishments: General Support Mission Area

**Title:** FIRS: General Support Mission Area includes:

**FY 2010 Accomplishments:**

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## FY 2010 Accomplishments: General Support Mission Area

**Title:** FIRS: General Support Mission Area includes:

**FY 2010 Accomplishments:**

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
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R-1 ITEM NOMENCLATURE
PE 0605873M: Marine Corps Program Wide Supt

PROJECT
2330: Chem Bio Consequence Mgmt

DATE: February 2011

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

FIRS: General Support Mission Area includes: 1) completed the prototyping and testing of modified COTS and Government Off-the-Shelf (GOTS) vehicles for the deployment of incident response equipment (Explosive Ordnance Disposal (EOD), SAR).

Accomplishments/Planned Programs Subtotals

\[
\begin{array}{|c|c|c|}
\hline
\text{FY 2010} & \text{FY 2011} & \text{FY 2012} \\
\hline
4.168 & 3.139 & 6.661 \\
\hline
\end{array}
\]

C. Other Program Funding Summary ($ in Millions)

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>652200: Field Medical Equipment-FIRS</td>
<td>3.406</td>
<td>3.290</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<td>0.000</td>
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</table>

D. Acquisition Strategy
N/A

E. Performance Metrics
N/A
A. Mission Description and Budget Item Justification

Pre-Phase A Activities include assessments, surveys, and planning activities in support of the requirements generation system to mature, limit, clarify, and define requirements before competition for resources in the POM process and transition to acquisition management. This effort will complement the currently funded Marine Corps Systems Command (MCSC) Phase A Activities line to pursue a limited range of items on a priority basis, examining critical issues and alternatives.

Examples of activities include but are not limited to (1) development of Operational Mode Summaries, Mission Profiles, Concepts of Employment and Acquisition Objectives, (2) mapping between legacy systems and replacements, (3) examining integration and family of systems architectural issues, (4) performing Doctrine, Organization, Training, Equipment, Support, Facilities (DOTESF) assessments and providing other key support for the Universal Needs Statement (UNS) process, (5) base-lining POM initiatives, (6) planning requirements support of evolutionary acquisition, (7) facilitating user/advocate interaction to better understand what is needed and how it will be used, and (8) supporting the Marine Requirements Oversight Council (MROC)-directed tailoring Authorized Acquisition Objective process.

Marine Corps Combat Development Command (MCCDC) averages approximately 62 Urgent Needs Statements (UNS) requests per year addressing new requirements, of which approximately 20% require expedited processing. Quick reaction assessment and planning is likely to support requirements emerging from current real world operations. Clear Facilities, a Command Element (CE) Army Research Laboratory (ARL) item (supported by the Marine Corps Ground Combat Element (GCE)) requiring a continuum of materiel solutions (family of systems) to enable lethal clearing of a broad range of man-made structures in multiple environments/tactical situations typifies a requirement needing pre-Phase A support.

Supporting activities have centered on decomposition of the mission into 460 specific tasks accompanied by development of an operational concept, objectives and key performance parameters, and warfighter prioritization. The end product will be a requirements road map. The end state will be a process and product to guide both POM and acquisition activities. These activities do not overlap or conflict with Mission Area Analysis and Analysis of Alternatives funded within the MCCDC Studies and Analysis (S&A) program, MCSC Phase A Activities, Marine Corps Warfighting Lab (MCWL) experimentation or Science and Technology (S&T) activities. Pre-Phase A Activities allow high priority requirements to move ahead in advance of funding decisions for specific programs, provide a better capability to react to emerging requirements and improve the quality of initiatives brought to the Program Objective Memorandum (POM) process.

Through front-end assessment, relatively modest funding can be leveraged into significant cost and schedule savings, bringing needed capabilities to the operating forces sooner and cheaper. Each POM cycle provides examples of initiatives that are unfunded or delayed by an immature requirement or understanding of alternatives. In other cases the initiative is funded but the acquisition cycle stretches out until the requirement is better understood. Pre Phase A facilitates a timely and more efficient process.
Phase A (previously known as Phase 0) Activities consist of a series of interrelated activities of the acquisition process designed to investigate potential material solutions to validate needs, estimate program costs, support sound business decisions, correct inherent disconnects between the Programming, Planning, Budgeting and Execution (PPBE) cycle, the Combat Development and Acquisition Management Systems, and prevent undue delays in pursuing priority requirements. The process supports Commanding General (CG), MCCDC and Commander, Marine Corps Systems Command (COMMARCORSYSCOM) by providing funding to priority programs, thus allowing for the examination of concepts and alternatives to support an orderly transition from requirements to initiatives and initiatives to funded programs. This will permit the POM process to focus on activities of evaluating, prioritizing and integrating rather than defining and resolving raw, immature requirements.

Phase A activities "jump start" high priority programs of the acquisition process. Furthermore, since 70% of a program's life cycle cost is determined during Phase A, this initiative will put resources to work where the return on investment is the greatest. Typical studies conducted on Phase A activities include, but are not limited to Market Surveys, Business Case Analysis (BCA), Cost as an Independent Variable (CAIV) analysis, Life Cycle Cost Estimates, Cost Comparison Analysis, Acquisition Strategies, Trade-off Analysis in lieu of an Analysis of Alternatives.

To satisfy the emerging requirements, the Deputy Commandant for Combat Development is leading the Marine Expeditionary Force Future Vehicle (MEFFV) effort to conduct Joint Capability Integration and Development System analysis to establish a capabilities framework specifically tailored to assess technologies for transition to the Marine Air Ground Task Force (MAGTF). MEFFV efforts are directed at capability refinement and integration, analysis of multiple concepts, determining technology objectives, and continued development of Initial Capabilities Documents (ICDs) and Capabilities Development Documents supporting "spin-out" technology transitions. This budget item supports combat development activities supporting the three Marine Requirements Oversight Council (MROC) priorities in compliance with JROC and USD AT&L guidance to participate in a Joint Program with the Army's Future Combat Systems Program.

### B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

<table>
<thead>
<tr>
<th>Title: <em>Phase A Activities</em></th>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles:</td>
<td>3.994</td>
<td>4.346</td>
<td>4.408</td>
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</tbody>
</table>

**FY 2010 Accomplishments:**
Phase A Activities - Initiated, assisted and completed Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Electronic Records Management, Net Enabled Command Capability, Target Processing, Ground Based Air Defense, Ground Based Operational Surveillance, Optical Systems, Route Reconnaissance and Clearance, Mortar Fire Control and Indirect Fire, Ground Radio and Maintenance and the Squad Immersive Training Environment.

**FY 2011 Plans:**
Phase A Activities - Initiate, assist and complete Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Electronic Records Management, Net
Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
BA 6: RDT&E Management Support

R-1 ITEM NOMENCLATURE
PE 0605873M: Marine Corps Program Wide Supt

PROJECT
2930: Phase 0 Activities

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)

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<tr>
<th>FY 2010</th>
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<th>FY 2012</th>
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<tr>
<td>3.994</td>
<td>4.346</td>
<td>4.408</td>
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Enabled Command Capability, Target Processing, Ground Based Air Defense, Ground Based Operational Surveillance, Optical Systems, Route Reconnaissance and Clearance, Mortar Fire Control and Indirect Fire, Ground Radio and Maintenance and the Squad Immersive Training Environment.

**FY 2012 Plans:**
Phase A Activities - Initiate, assist and complete Phase A activities of high priority programs during their concept refinement and in some cases their technology development phases in the areas of Business Case Analysis, Trade Studies, Economic Analysis, Life Cycle Cost Estimates and Market Research Studies in support of the following efforts: Networking On-The-Move, Targeting Studies and Analysis, Tank Reset and Sustainment, AAVC7, Autonomic Logistics, Visual Info Systems and Medium Tactical Vehicle configuration.

C. Other Program Funding Summary ($ in Millions)
N/A

D. Acquisition Strategy
N/A

E. Performance Metrics
N/A
### A. Mission Description and Budget Item Justification
Congressional Add for Center for Advanced Logistics Management (CALM) will be utilized to establish a logistics faculty and curriculum at Albany State University that would ultimately provide a training pipeline for students wishing to work in the logistics field at Marine Corps Logistics Command (LOGCOM) in Albany, GA and at Marine Corps Systems Command (MARCORSYSCOM) locations.

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

<table>
<thead>
<tr>
<th>FY 2010</th>
<th>FY 2011</th>
<th>congressional add: Global Supply Chain Management</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FY 2010 accomplishments: Funding will provide a training pipeline for students wishing to work in the logistics field at Marine Corps Logistics Command (LOGCOM) in Albany, GA and at Marine Corps Systems Command (MARCORSYSCOM) locations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Congressional Adds Subtotals: 0.797</td>
</tr>
</tbody>
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### C. Other Program Funding Summary ($ in Millions)
N/A

### D. Acquisition Strategy
N/A

### E. Performance Metrics
N/A