

ANNEX Q
Simulator Life Cycle Management Plan (LCMP) Template

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SIGNAL CENTER AND FORT GORDON
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ATZH-DT

01 April 2006

MEMORANDUM FOR RECORD

SUBJECT: United States Army Signal Center Directorate of Training (DOT) Simulator Life Cycle Management Standard Operating Procedure (SOP)

1. PURPOSE. This SOP provides guidance for life cycle management responsibility for Simulators and Simulations developed by and/or for the United States Army Signal Center DOT.

2. SCOPE. This SOP is applicable to all DOT subordinate organizations, military personnel, and Department of Defense (DOD) (Army) civilians, and contractor personnel that are assigned to or support the DOT.

3. REFERENCES.

a. DFAS-IN 37-100-FY, Defense Finance and Accounting Service – Indianapolis Center Indianapolis Manual

b. DODI 5200.40, DOD Information Technology Security Certification and Accreditation Process, (DITSCAP), 30 Dec 97.

c. AR 25-2, Information Assurance, 14 Nov 03.

d. AR 70-1, Army Acquisition Policy, 31 Dec 03.

e. AR 700-127, Integrated Logistics Support, 19 Dec 05 (pg. 6, section 2-12 and pg. 17 section 3-14).

f. AR 700-142, Materiel Release, Fielding and Transfer, 21 Feb 06.

g. DA PAM 70-3, Army Acquisition Procedures, 15 Jul 99.

h. DA PAM 700-142, Instruction for Materiel Release, Fielding and Transfer, 2 Aug 04.

i. DA PAM 700-56, Logistics Supportability Planning and Procedures in Army Acquisition, 5 Dec 05 (pg. 36-40, sections 13-3, 13-4, 13-6, 13-7, 14-1 and 14-3).

j. PEO STRI SOP 25, Processing, Procedures for Memoranda of Agreement/Understanding (MOA/MOU) and Intraservice/Interservice/Intragovernmental Support Agreements (ISA), 19 May 05.

k. PEO STRI SOP 70-1, Acquisition Program Classification and Management, 20 Sep 04.

l. PEO STRI SOP 700-142-2, Materiel Release for Issue, 9 Aug 04.

m. PEO STRI SOP 700-142, Systems Life Cycle Management Planning, FEB 06.

4. DEFINITIONS.

a. Associate Contractor Agreements (ACAs). Agreements between contractors working on contracted governmental projects that specify requirements for them to share information, data, technical knowledge, expertise, or resources. In the context of this SOP, ACA means agreements between Original Equipment Manufacturers (OEMs) or prime contractors responsible for delivery of systems or end-item products and the Life Cycle Contractor Support (LCCS) Contractor.

b. Business Case. A business case is a tool used to manage business process improvement activities from inception through implementation. A business case is a document that identifies functional alternatives and presents economical and technical arguments for carrying out alternatives over the life cycle to achieve stated business objectives or imperatives. A business case is a best value analysis, considering not only cost, but other quantifiable and non-quantifiable factors supporting an investment decision. (See SOP Appendix B for DOD Business Case Model).

c. Certification and Accreditation (C&A). Security certification is a comprehensive evaluation of the technical and non-technical security features of an Information System (IS). Accreditation is the official management authorization to operate an IS or network.

d. Computer hardware reprocurement. Computer hardware that was delivered to the field and is on a planned acquisition cycle of re-procurement (recommended cycle is every 5 years) based on individual system requirements, obsolescence, and fiscal constraints. (from AR 70-1, paragraph 7-18)

e. Concurrency. Includes funding requirements for parts and labor costs needed to develop, if required, and modify an existing training system to keep it synchronized with the combat or tactical system it represents.

f. Configuration Management (CM). Configuration Management (CM) is a process for establishing and maintaining the consistency of a product's physical and functional attributes with its design and operational information throughout its life.

g. Continuous Technology Refreshments. A spares acquisition strategy applied throughout the materiel acquisition life cycle to reduce sustainment costs. It is based on technology insertion and use of commercial products, processes, and practices to extend a system's useful life". (From AR 70-1, paragraph 8-9)

h. Designated Approving Authority (DAA). DAA is the official with authority to formally assume responsibility for operating a system at an acceptable level of risk.

i. Funding Memorandum. A memorandum sent by the Project Manager (PM) of a training system to the Deputy Chief of Staff for Operations and Plans (DAMO-TR). This memorandum identifies the training system requiring transition from the applicable system PEO STRI Project Office to the PEO STRI PM Field Operations and Support (OPS) consolidated LCCS contract and requests DAMO-TR approval. (See SOP Appendix A for sample funding memorandum).

j. Integrated Product Team (IPT). A team composed of representatives from appropriate functional disciplines working together to build successful programs, identify and resolve issues, and make sound and timely recommendations to facilitate decision-making. IPT responsibilities include coordinating and executing sustainment transition activities.

k. Memorandum of Agreement (MOA). An MOA is a written agreement that documents in principle how the program will be administered by each signatory. (Refer to PEO STRI SOP 25 for guidance on preparation of MOAs/MOUs).

l. Modification/Upgrades. This category includes block replacement or modification of components for reasons other than obsolescence, including Pre-Planned Product Improvements (P3I), Service Life Extension Programs (SLEP), block upgrades, modifications, conversions, reconfigurations, retrofits, or technology insertions that significantly change the performance envelope of the system. NOTE: The Modification/Upgrade category would also include purchases of equipment in support of fielded systems that would be considered an 'investment' under DFAS-IN Manual 37-100, pg. 3 & 4

m. Obsolescence. Includes funding requirements to replace and integrate components / technology that has gone out of production, cannot be cost effectively obtained, or are inefficient to sustain and operate, with current military or commercial components/technology.

n. Performance Based Agreement (PBA). A documented agreement between the PM, the Warfighter and the support provider, called a PSI, that clearly delineates the Warfighter performance outcomes, support requirements necessary to achieve those outcomes, and the resources required. The PBA may take many forms (i.e., a separate document titled PBA, an MOU/MOA, a Performance Plan and Agreement (PPA) (used in the RECAP program), the Materiel Fielding Plan/Agreement (MFP/MFA)). (See SOP Appendix C for example of a PBA via MOA).

o. Post Deployment Software Support (PDSS). PDSS consists of the software planning, management and support activities necessary to ensure attainment of readiness and sustainability objectives with economical system support while the program office continues to develop, or field the training systems.

p. Post Production Software Support (PPSS). PPSS consists of software maintenance fixes, upgrades, and new version releases that occur after the program office has completed development and fielding, and the training system enters the sustainment phase of the life cycle.

q. Product Support Integrator (PSI). PM Field OPS or other activity designated or selected (designation identification no later than the beginning of the System Development &

Demonstration Phase or Milestone B) by the Project Manager to have overall maintenance and supply support responsibility for a system once it enters the sustainment phase of the life cycle.

r. Project Manager (PM). The designated military or civilian official with responsibility for, and authority to, accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM is the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment.

s. Total Life Cycle Systems Management (TLCSM). The primary intent of TLCSM is to improve system sustainment by establishing clear responsibility and accountability for meeting specified Warfighter performance requirements within the Project Management office. PMs will be held responsible for the overall management of the system life cycle to include: timely acquisition of systems, meeting Warfighter performance requirements, integration of sustainability and maintainability during the acquisition process, and system sustainment to meet or exceed Warfighter performance requirements throughout the life cycle at best corporate value to the Services and DOD.

5. POLICY.

a. The system life cycle management process is intended to improve system sustainment by meeting or exceeding Warfighter performance requirements throughout the life cycle of the system while reducing ownership costs and logistics footprint. PM's will be responsible and accountable for total life cycle management of their assigned programs. There is no transition of life cycle management responsibility away from the PM in accordance with AR 70-1, paragraph 1-4(e), dated 31 Dec 03.

b. The system Life Cycle Management Plan (LCMP) will serve as the planning document that succinctly identifies the PM's overall life cycle approach from system development, to production and fielding to operations and support inclusive of disposal or a "cradle to grave" approach.

c. The LCMP should be initiated by the PM and staffed for PM approval at Milestone B. Updates to the LCMP will happen on an as required basis following PM approval or as program changes necessitate. However, as a minimum, the PM will ensure the LCMP remains current by conducting an annual review no later than fourth quarter of each fiscal year and documenting any revisions on a revision tracking sheet and provide as an enclosure to the document.

6. OVERALL MANAGEMENT RESPONSIBILITIES.

a. PM's will:

(1) Execute TLCSM responsibilities for assigned programs.

(2) Ensure logistics support requirements are included in the procurement contract (e.g. manuals, spares lists, training materials, initial spares package, etc.).

(3) Ensure the development and coordination of LCMPs. (See Appendix D for LCMP Outline

(4) The PM will conduct a business case analysis to determine the method for conducting the maintenance and supply support of the developed systems. The method selected for maintenance and supply support will be briefed and approved by the Milestone Decision Authority (MDA) or his designated representative.

(5) The PM will ensure transfer of maintenance and supply support to PEOSTRI sustainment PM occurs within two years of achieving an Initial Operational Capability (IOC) per the Acquisition Program Baseline schedule, unless the MDA approved an alternative approach supported by a business case analysis.

(6) Develop a PBA in consonance with the Warfighter and the training system PSI to establish the negotiated baseline of performance, and corresponding support necessary to achieve that performance.

(7) Provide for life cycle configuration management and maintain oversight and final approval over system configuration throughout the life cycle.

(8) Ensure contracts contain provisions for and require OEM/prime contractor to execute ACAs with the LCCS contractor within 90 days of contract award.

(9) If the PM is a PEOSTRI customer and PEOSTRI PM is providing Materiel Developer (MD) support, all of the above responsibilities apply and should be addressed in a signed Memorandum of Agreement with the customer PM assigning responsibility.

b. PM Field OPS shall:

(1) Participate in the overall sustainment management responsibility planning process of developed systems.

(2) Execute the maintenance and supply support mission for the PM's as their agent.

(3) Execute the operations and support mission on systems transitioned from external PM's or customers.

(4) Require LCCS contractor to execute ACAs with OEMs within 90 days of OEM task award.

(5) For those systems where configuration management have been delegated by the PM, ensure that form, fit and function of the system is not altered unless approved through the configuration management process established for the system.

(6) Collect metrics on system performance and support and report them to the PM to allow the PM to monitor and manage their fielded systems.

(7) Conduct LCMP annual reviews and updates for those systems under PM Field OPS configuration management.

c. The Project Support Group (PSG) shall:

(1) Participate in sustainment planning meetings with the system PM's.

(2) Provide all PSG level support to the PM's to ensure that logistics requirements are included in system acquisition contracts and that appropriate life cycle management planning is conducted.

d. The User (U.S. Army Signal Center and Fort Gordon) shall:

(1) In the absences of a PM for a particular system (i.e. the S6 or LAN/WAN Simulator) perform their duties and responsibilities as listed above.

(2) Monitor the actions of the groups mentioned above to ensure that they are supporting User interests and requirements as outlined in this document.

7. PROCESS. The system life cycle management planning development and execution process is graphically depicted at Appendix E. Below is a summary of steps that the PM may follow.

a. Step 1: At program initiation the PM will analyze potential system life cycle issues as part of the system engineering process. The PM goals should be to ensure user/Warfighter performance requirements are met by influencing training system design to be reliable (operationally ready), to be sustainable while reducing total ownership costs and overall logistics footprint at the user sites. The PM is responsible for initiating LCMPs.

b. Step 2: The PM will develop a System LCMP per the requirements of this SOP. See LCMP at Appendix D. The LCMP will be distributed by the PM electronically at the same time for review. The initial draft and all subsequent revisions to the LCMP will be simultaneously distributed electronically via email by the PM for coordination and review. The PM will determine a reasonable time limit for review and enforce that time limit during internal coordination process.

c. Step 3: The PM will ensure that the necessary project life cycle planning, programming, and budgeting activities have been accomplished to meet program schedules.

d. Step 4: See Appendix E. The PM will ensure the LCMP is coordinated and reviewed to include: the Project Director; Acquisition Logistician; applicable sustainment manager in PM Field OPS; PM office Procurement/Budget Analyst; Field OPS Procurement/Budget Analyst; and the PM Field OPS Lead Engineer.

e. Step 5: Once the LCMP has been reviewed and coordinated by the PM, a final draft will be developed and electronically staffed for final coordination and review through the Project Support Executive; the applicable Deputy Product Managers and Product Managers; the Assistant Project Managers, Deputy Project Managers and Project Managers; the Deputy Project Managers and Project Manager in Field OPS; and the Director of Acquisition Logistics.

f. Step 6: A final, hard-copy LCMP will be printed for final approval by: the Project Support Executive; the Project Manager, Field OPS; and the applicable Project Managers in that order.

g. Step 7: The PM will ensure that the LCMP contains the necessary actions that allow for a seamless training system sustainment transition from the acquisition PM to PM Field OPS to

accomplish the O&S activities. The PM will ensure that the LCMP is consistent with the support strategy that is planned for sustainment and addresses all actions necessary to allow for smooth transition of the system from the acquisition phase to the sustainment phase of its life cycle. If the PM delegates the execution of system configuration management to PM Field OPS as part of their responsibility as the PSI, PM Field OPS will assume the lead for LCMP annual reviews and updates for the remainder of the system life cycle.

h. Step 8: The PM initiates review of LCMPs annually for applicable updates and such updates will be identified by use of specific naming convention. (e.g., CTC-OIS-06-Rev. 1 – MM/DD/YY).

8. GOAL. To have a standardization of the actions in planning, documenting, tracking, coordination and obtaining approval for the system life cycle management process of PEO STRI managed materiel. The objective of this procedure is to establish a consistent process for system life cycle management of PEO STRI managed materiel that facilitates compliance with mandatory DOD and Army acquisition policy.

9. PROPONENT. Proponent for this SOP is MAJ Chuck Dugle, USASC&FG Director of Simulations, (706) 791-8681, DSN 780-8681. Review of this SOP will occur annually.

MICHAEL A. CORDES
Director of Training
COL, SC

Appendices:

A – Sample DA Funding Memorandum

B – Business Case Model for the DOD Logistics
Community

C – Example of a Memorandum of Agreement Used
as a Performance Based Agreement

D – Life Cycle Management Plan Outline

E – Typical Life Cycle Management Planning Development
and Execution Process

APPENDIX A

**Sample
DA Funding Memorandum**



**DEPARTMENT OF THE ARMY
UNITED STATES ARMY AVIATION AND MISSILE
COMMAND
REDSTONE ARSENAL, ALABAMA 35898-5070**

REPLY
TO AMSAM-DSA-SH
ATTEN
TION
OF MEMORANDUM FOR Deputy Chief of Staff for Operations and
Plans, ATTN: DAMO-TRS/Mr. Kevin Hammond, 400 Army
Pentagon, Washington, DC 20310

SUBJECT: Transition of Avenger Training Devices to Simulation Training and Instrumentation Command (STRICOM)

1. The purpose of this memorandum is to identify training devices requiring transition from the Short Range Air Defense (SHORAD) Project Office to the STRICOM Life Cycle Contractor Support (LCCS) contract and obtain approval for this transition.
2. Background.
 - a. The SHORAD Project Office has responsibility for the STINGER/MANPADS, Avenger, Linebacker, and Air-to-Air STINGER (ATAS) Weapons Systems. The combat performance of these systems depends on properly trained operators.
 - b. In the case of Avenger, this system was a Non-developmental Item (NDI) fielded without the development of system specific training devices. The Avenger has the Required Operational Capabilities (ROC) for a suite of training devices.
 - c. Until 1997 Avenger gunners (MOS 14S) were trained on tactical fire units at the Air Defense School. This is a costly training method and provides limited proficiency. Training device funding became available in FY 95. This training device funding has resulted in the development of the Avenger Institutional Conduct of Fire Trainers

(ICOFT) and Table Top Trainers (TTT). The ICOFTs are based on a ROC requirement while the TTT was based on an urgency of need requirement by the user.

d. Initial funding for the development and fielding of the TTT was through the reprogramming of one less ICOFT (declining force structure and less through-put of students at the Air Defense School). A UFR was submitted on 28 Jan 99 to fund Avenger training device support.

e. We have completed the production phase of the ICOFT and are near the end of the current production of TTTs. Interim contractor support is rapidly ending the production phase of these devices and the focus is now on funding CLS sustainment. There are three devices associated with the Avenger Weapons System we are requesting approval to transition to STRICOM. Those devices are:

- (1) Avenger Force-On-Force Trainer (FOFT)
- (2) Avenger Institutional Conduct of Fire Trainer (ICOFT)
- (3) Avenger Table Top Trainer (TTT)

A chart describing each trainer is provided for your information at enclosures 1-3.

3. The SHORAD Project Office has initiated discussions with STRICOM for the transition of the above devices and they concur with this action. A Letter of Agreement (LOA) for the transfer has been drafted and is being staffed at STRICOM and SHORAD. We understand the funding implications (Provide LCCS funding until it can be funded in the WCLS POM) of this transition effort and believe it is in the best interest of the U.S. Army to approve this transition.

4. The point of contact for this action is Len Gibbs, 256-876-1135, or DSN: 746-1135.

//s//

ROBERT F. ARNONE
COL, FA
Project Manager, SHORAD

CF:

Commander, STRICOM, AMSTI-LV/John Ells, 12350 Research Parkway,
Orlando, FL 32826
Commander, U.S. Army Training Support Center, ATTN: ATIC-ATMW-FD/
Bob Santillan, Fort Eustis, VA 23604-5166

APPENDIX B

BUSINESS CASE MODEL FOR THE DOD LOGISTICS COMMUNITY

**A Guide to Business Case Development
September 30, 1999**

TYPICAL BUSINESS CASE TABLE OF CONTENTS

- 1.0 Executive Summary**
- 2.0 Boundaries of the Business Case**
 - 2.1 Goals and Vision**
 - 2.2 Context and Perspective**
 - 2.3 Functional Performance and Metrics**
 - 2.4 Initiatives Considered**
 - 2.5 Baseline/Alternatives Considered**
 - 2.6 Key Assumptions**
 - 2.7 AS-IS Activity Model**
- 3.0 Discussion of Alternatives**
 - 3.1 Alternative 1**
 - 3.1.1 Functional Process Description**
 - 3.1.2 Performance Impact and Metrics**
 - 3.1.3 Technical Architecture (Optional)**
 - 3.1.4 Cost Projections**
 - 3.1.4.1 Investments/Action Plans**
 - 3.1.4.2 Operational Plans**
 - 3.1.5 Risk Assessment**
 - 3.2 Alternative 2**
- 4.0 Comparison of AS-IS and Alternatives
(Graphical Presentations Preferred)**
 - 4.1 Functional**
 - 4.2 Performance**
 - 4.3 Costs**
 - 4.3.1 Investment Costs**
 - 4.3.2 Operational Cost Savings**
- 5.0 Conclusions, Recommendations, and Issues**

APPENDIX C

EXAMPLE OF A MEMORANDUM OF AGREEMENT (MOA) USED AS A PERFORMANCE BASED AGREEMENT (PBA)

MEMORANDUM OF AGREEMENT
BETWEEN
UNITED STATES ARMY FORCES COMMAND
AND THE
PROGRAM EXECUTIVE OFFICE FOR COMMAND
CONTROL COMMUNICATIONS SYSTEMS
PROJECT MANAGER, TACTICAL RADIO COMMUNICATIONS SYSTEM

Subject: Enhanced Position Location Reporting System (EPLRS)

1. Purpose: The purpose of this Memorandum of Agreement (MOA) is to establish the administrative and logistics/maintenance support relationship between the United States Army Forces Command (FORSCOM) and the Program Executive Office for Command Control Communications System (PEO, C3S) Project Manager, Tactical Radio Communications System (PM TRCS) for the Enhanced Position Location Reporting System (EPLRS) Radios and Net Control Station (NCS) TAC-4 Computers.

2. Scope: It will be the responsibility of the signatory parties and/or their representatives to ensure maximum cooperation between FORSCOM and PEO, C3S to achieve readiness, sustainability, and complete operational effectiveness of all EPLRS systems. Mobilization will not change the aspects of this agreement.

3. Overview: This MOA is to be used to fund the repair of FORSCOM EPLRS radios through PMO TRCS. FORSCOM will provide funding for centralized contracts support through PMO TRCS with Space and Naval Warfare Systems Command (SPAWAR) and Raytheon. FORSCOM will provide PMO TRCS with a MIPR not to exceed \$1 million at the beginning of each fiscal year. This amount will be negotiated each year based on previous year average repair per item, failure rate and quantity of radios fielded. This MIPR will be utilized for labor and parts for repairs made to FORSCOM EPLRS systems and service, parts and labor in support of the AN/TSQ-158 (V) 4. The PM is responsible for ensuring that all charges are valid and that proper payments are made to the contractor for actual charges. The PM will return MIPR balances that are not obligated toward projected current year bona fide needs by September 1, to allow FORSCOM to re-obligate these funds for other purposes. The PM will provide activity reports, financial transactions, balances and shortages, if applicable, to the FORSCOM EPLRS item manager for review.

4. Background:

a. EPLRS uses two primary pieces of hardware, the Radio Set (RS) and Net Control Station (NCS). The highly sophisticated nature of this technology delivers a high reliability rate with an almost prohibitive maintenance intervention at lower support echelons. The maintenance philosophy developed and accepted for this equipment requires two levels of repair: Organizational and Depot. Raytheon, the manufacturer, has been designated the depot for EPLRS Radio repairs. The NCS enhancements have replaced the multiple computer suites in the V3 Versions with a TAC-4 developed and managed by the U.S. Navy. SPAWAR is the designated Special Repair Activity (SRA) for this equipment.

AFLG-FMMC-HT

Subject: Enhanced Position Location Reporting System (EPLRS)

b. The Standard Army Retail Supply System cannot effectively and economically provide efficient support of readiness objectives due to the upward spiral of scheduled EPLRS enhancements. To offset this shortfall and assist the fielded units to maintain readiness within the current budget restraints, PM TRCS chose to utilize Life Cycle Contractor Logistics Support (LCCLS) to effectively meet these requirements.

5. Responsibilities:

a. PMO TRCS will:

(1) Provide support and assist FORSCOM to maintain operational stability and preparedness of fielded EPLRS radios in accordance with the provisions of Contract No. DAAB07-99-D-C751 Del Order 0002 and amendments as applicable.

(2) Maintain Contractor Logistics Support (CLS) and monitor depot (Raytheon) performance and requirements to return all EPLRS radios to serviceable condition.

(3) Provide field service and maintenance support for all NCS equipment provided by SPAWAR (including software support).

(4) Create separate contractual Accounting Classification Reference Number (ACRN) for each Major Division (4th ID, 3rd ID, 1st CAV) with an appropriate credit line to allow approved charges to be deducted accordingly. (This requires funding up front in accordance with logistics engineering projected failure rates and fielded densities).

(5) Provide shipping instructions and points of contact for repair at the Raytheon depot and SPAWAR for return to the appropriate FORSCOM Units.

(6) Maintain constant surveillance to ensure sufficient Turn-around-Time (TAT).

(7) Monitor repair activity and review all charges assessed by the repair depot and SPAWAR.

(8) Provide activity reports, financial transactions, balances and shortages, to the FORSCOM EPLRS equipment manager prior to September of each year.

(9) Attend all meetings, as requested, pertaining to this agreement.

AFLG-FMMC-HT

Subject: Enhanced Position Location Reporting System (EPLRS)

(10) Develop estimated costs for EPLRS contract support based on latest historical data. Estimated costs will consider the average failure rate (AFR) percentage times the total quantity to be fielded by the end of the subsequent year. The total estimated requirement will then be multiplied by the average cost of repair (ACR) from the previous year plus 5% escalation. This calculation will be used for projecting the following year MIPR amount. (Average failure rate: Failures/Fielded radios)

$AFR \times Qty \text{ Fielded} = \text{Estimated failures for next year (EF)}$

$EF \times ACR = \text{Estimate Repair cost} \times 1.05 = \text{Estimated repair cost for the next year}$

(11) PMO TRCS will return MIPR balances that are not obligated toward projected current year bona fide needs by September 1, facilitating HQ, FORSCOM's re-obligation of funds for other purposes. A bona fide need is considered an estimate of radios to be repaired times the current average cost per repair. The bona fide need will consider the radios reflected in the contractors' work in progress as of August 15.

b. FORSCOM will:

(1) Provide a MIPR to PM TRCS by November 1 each year to procure repair parts, modules and fund labor costs required by the CLS Depot Repair contract and fee for service as well as parts and labor for support of FORSCOM units' NCS (SPAWAR). The MIPR shall read "For Parts, Labor and Services to restore the EPLRS and NCS equipment to operational condition." The MIPR shall be for OMA dollars at a "not to exceed" amount that will be negotiated each year based on the quantity of radios fielded and average cost of repair as outlined in paragraph 5a(10).

(2) Provide coordination between FORSCOM subordinate units and PMO TRCS as it relates to readiness, repair activity of EPLRS Radios and Net Control Station, and other problems and/or deficiencies.

(3) Provide a FORSCOM point of contact to PMO TRCS who will coordinate this MOA and other EPLRS related issues. This information will include at a minimum unit name, address, e-mail and telephone number.

(4) Provide an annual progress report or forum for discussing required improvements for maintenance for EPLRS equipment. This will be accomplished in the most expedient and cost effective manner possible (teleconference, video conference, e-mail discussion or etc.).

STANDARD OPERATING PROCEDURE 700-142
SUBJECT: Systems Life Cycle Management Planning

AFLG-FMMC-HT

Subject: Enhanced Position Location Reporting System (EPLRS)

6. **Implementation:** The above requirements constitute the initial agreement to implement life cycle maintenance by PMO TRCS and FORSCOM for the EPLRS system. This MOA becomes effective upon signature by both parties. This agreement will be reviewed as required and may be amended at any time by mutual consent.

LEON J. LAPORTE
Lieutenant General, USA
Deputy Commanding General/
Chief of Staff

19 19 2001

(Date)

MICHAEL R. MAZZUCCHI
Brigadier General, USA
Program Executive Officer,
Command, Control and
Communications Systems

30 Aug 01

(Date)

APPENDIX D
LIFE CYCLE MANAGEMENT PLAN
FOR THE
SAMPLE TRAINING SYSTEM
(STS)

PREPARED BY:

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SIGNAL CENTER AND FORT GORDON
506 CHAMBERLAIN AVENUE
FORT GORDON GEORGIA 30905-5735

Version 06-1B, Day Month Year

NOTE – The first two characters of your version number will be the Fiscal Year for which this version of the LCMP applies. The following numeric character will be used to indicate a major revision requiring approval and the alpha character will indicate a minor revision that does not require new approval. An LCMP with version number 06-1A would therefore be the first LCMP prepared for Fiscal Year 2006 and 06-1B would be a minor revision to it. During the review and coordination process, the LCMP will be clearly labeled DRAFT and the version designation will include the word “Draft”, e.g. “Draft Version 06-1A.”

APPROVAL PAGE

This document provides logistics and sustainment related funding estimates for the Sample Training System (STS). It is effective upon signature of all parties below and will be changed as required by mutual consent. Final signature on this page will change the status of this document from draft to final.

Name	Name	MICHAEL A. CORDES
Rank	Project Manager, Field	Director of Training
Project Manager XXX	Operations and Support (PM	COL, SC
PM XXX	Field OPS)	

Date	Date	Date

NOTE - If applicable – e.g. all LT2 systems require the approval of the APM LT2

NOTE - If applicable – e.g. all LT2 systems require the approval of the APM LT2

CHANGE HISTORY

<u>Revision Date</u>	<u>Paragraph No.</u>	<u>Change Description</u>
Date	Initial Version	Provided initial funding estimates and overview logistics planning information.
Date	List paragraphs with major changes	Provide a brief description of changes.

EXECUTIVE SUMMARY

The executive summary is limited to one page and should provide key information suitable to allow upper management a high level understanding of the purpose of the LCMP and the current plans for life cycle support of your system.

Some specifics that should be mentioned up front in the executive summary include: projected Initial Operational Capability (IOC) dates; fielding strategy and locations; projected support strategy (organic, LCCS, etc.); major changes since the last approved LCMP; and any high-risk issues that may impact system supportability at IOC or any time during the life cycle.

TABLE OF CONTENTS

LIFE CYCLE MANAGEMENT PLAN FOR THE SAMPLE TRAINING SYSTEM (STS)

NOTE – If the body of your LCMP has more than ten pages or if it has a large number of appendices, you should include a Table of Contents. For shorter documents, a Table of Contents is optional.

NOTE – The format provided by this sample is a guideline only. Your LCMP will need to be tailored to your specific program. This may require the inclusion of additional subparagraphs, charts or appendices that may be needed to fully explain the life cycle support aspects of your program. Sections 1.0 through 6.0 in this sample table of contents must be covered. For any sections that may not apply, you should provide a statement and reason to that effect.

	Page	
1.0	System Description	x
2.0	Acquisition Strategy	x
3.0	Fielding & Support	x
4.0	Program Overview	x
4.1	Configuration Management	x
4.2	Sustainment Management	x
4.3	Logistics and Engineering Support	x
4.4	Maintenance Concept	x
4.5	Software	x
5.0	Life Cycle Cost Categories	x
5.1	Development	x
5.2	Procurement	x
5.3	Operations and Maintenance	x
5.4	Operations	x
5.5	Maintenance	x
5.6	Post Deployment Software Support	x
5.7	Post Production Software Support	x
5.8	Obsolescence	x
5.9	Concurrency	x
5.10	Technology Refresh	x
6.0	Integrated Cost/Schedule	x
7.0	Optional Section(s) as required	x
8.0	Appendix(es)	x

1.0 SYSTEM DESCRIPTION. *(This is a high-level description of your program. A suitable system description may be obtainable from sources such as the Supportability Strategy, Statement of Work (SOW), Concept of Operations (CONOPS), other program documentation).*

1.1 Actual Equipment Description. *(Taken from TM).* (PM RESP).

1.2 Simulation Description. *(Taken from Simulator SOW, SIM Update Brief Slides and School House Records and Documents).* (PM RESP).

1.2.a. Type of Simulator. *(State if it is a Virtual or Constructive Simulation).* (PM RESP).

1.2.b. Level of IMI. *(Specify if it is a Level 1, 2, 3 or 4 IMI Product).* (PM RESP).

1.2.c. Size of Simulator. *(State how many MB it is).* (PM RESP).

1.2.d. Software & Hardware Requirements. *(List the Software and Hardware Requirements listed in the original Software Specifications Documents provided by the contractor who built the Simulator).* (PM RESP).

1.2.e. Number of Lessons. *(State how many lessons it has).* (PM RESP).

1.2.f. Model Description. *(State what version or spiral of the actual equipment is modeled).* (PM/SME RESP).

1.2.g. Unique Features or Functions. *(State what type of format it uses, i.e. the FAPV Learning Model).* (PM RESP).

1.2.h. Delivery Means. *(State how it is accessible to Soldiers, i.e. it can be accessed via the internet or via CD-ROM).* (PM RESP).

1.2.i. Target Audience. *(State what the target audience of the Simulator is).* (PM/SME RESP).

1.2.j. Courses & POIs the Simulator Supports. *(This is broken down by School House in subordinate categories).* (School Houses RESP).

1.2.k. How the Simulator Supports these Courses & POIs. *(Describe by School House and by course & POI how the Simulator supports it, i.e. as a practical exercise, as concurrent training, as remedial training, for testing, in lieu of actual equipment, etc...).* (School House RESP).

1.2.l. Operational Impact. *(Describe what the operational impact of not keeping the Simulator up to date and functioning would be to the course. Explain in sub-categories by School House and by course).* (School Houses RESP).

2.0 ACQUISITION STRATEGY. *(Summarize your acquisition strategy. Is a contractor serving as a Lead Systems Integrator (LSI)? Is this an evolutionary acquisition approach, delivering capabilities in increments?)*

2.1 Procurement Agency. *(List who paid for the development of the Simulator and for how much).* (PM RESP).

2.2 Development Agency. *(List which contractor (s) developed the Simulator).* (PM RESP).

2.3 Contract Type. *(Specify the type of contract (fixed price, cost plus, etc.) and when it was awarded).* (PM RESP).

2.4 Period of Performance. *(List the period of performance).* (PM RESP).

3.0 FIELDING & SUPPORT. *(This is one section where you may want to include subsections; one for Fielding/Deployment strategies and one for Support strategies. In these sections you will say how and where your system will be fielded, how it will be supported at time of fielding, and what the long term support strategies are).*

3.1 Fielding. *(List who approved the fielding plan for the Simulator, how many were fielded and where they were fielded).* (PM RESP).

3.2 Support. *(Outline the long term, big picture, support strategy for the Simulator).* (PM/PEO-STRI/SIGCEN RESP).

4.0 PROGRAM OVERVIEW

4.1 Configuration Management *(Say who controls the system configuration and how during system development and after the system enters sustainment. Be sure to address hardware and software).* (PM/PEO-STRI/SIGCEN RESP).

4.2 Sustainment Management. *(Who will provide sustainment management? Will full sustainment management responsibility be retained by the PM or will execution of sustainment management be delegated to a Product Support Integrator (PSI)? In most cases at PEO STRI, the PM will designate PM Field OPS as the PSI. (NOTE - The PM designates an organic PSI such as PM Field OPS. If a commercial PSI is to be used, the PM selects them.) Say how and when the PM will delegate sustainment responsibility to the PSI. What conditions, agreements apply to this delegation and what primary responsibilities does each organization have in this process)?* (PM/PEO-STRI/SIGCEN RESP).

4.3 Logistics and Engineering Support. *(What organizations are providing these types of support during acquisition? The sustainment plan will be mentioned below under 4.4 Maintenance Concept).* (PM/PEO-STRI/SIGCEN RESP).

4.4 Maintenance Concept. *(State how many levels of maintenance will be used? Who will provide them)?* (PM/PEO-STRI/SIGCEN RESP).

4.4.1 Hardware. *(This refers to the personal computers that run the Simulator. For distributed learning applications and/or for non-resident training the end-user is responsible for providing this support. For resident training at Ft. Gordon, PEO STRI will be responsible for providing this support under a consolidated LCCS contract. Furthermore, PEO STRI will be responsible for repairing/replacing any broken and/or damaged hardware equipment under the provisions of the life cycle cost category of "Operations and Maintenance" outlined on pg. ___ of this SOP.*

The PM will be responsible for upgrading and/or replacing any outdated hardware equipment under the provisions of the life cycle cost category of either “Obsolescence” or “Technology Refresh” outlined on pg. ___ of this SOP). (PM/PEO-STRI/SIGCEN RESP).

4.4.2 Software. *(Are there software components to your system? Are they commercial or developmental? What type of documentation do they come with? Are there recurring software licensing requirements (and costs)? Who will provide software support during and after fielding)? (PM/PEO-STRI/SIGCEN RESP).*

4.4.2a Computer Software. *(This type of software refers to the software on the computers utilized in the resident school house classrooms. An example of this would be Windows XP. PEO STRI will be responsible for the post production software support of this type of software through a consolidated LCCS contract under the provisions of the life cycle cost category of “Post Production Software Support” outlined on pg. ___ of this SOP. The PM will be responsible for upgrading and/or replacing any outdated software under the provisions of the life cycle cost category of either “Obsolescence” or “Technology Refresh” outlined on pg. ___ of this SOP). (PM/PEO-STRI/SIGCEN RESP).*

4.4.2b Simulator Software. *(This type of software refers to the actual Simulator itself. The PM will be responsible for deciding whether they want either PEO STRI or the original contractor who developed the Simulator (Recommended) to provide the post production software support for the Simulator. Post production software support for the Simulator would fix things like any SCORM Compliancy or BLACKBOARD compatibility issues it may be having. The PM will be responsible for upgrading and/or replacing any outdated Simulator software (Lessons & Models) under the provisions of the life cycle cost category of “Concurrency” outlined on pg. ___ of this SOP). (PM/PEO-STRI/SIGCEN RESP).*

4.4.2c Information Assurance. The user, local site administrator is responsible for updating the software so that it is IAVA compliant on a regular basis IAW local user policies and SOPS.

5.0 LIFE CYCLE COST CATEGORIES

Requirements estimates for the various life cycle cost categories have been differentiated and are summarized below in Figure #1.

NOTE – The sample chart below is probably the simplest way to present the required data. This may be tailored to meet the needs of your system.

Life Cycle Cost Category Projections		As of: DATE						
System: Sample Training System		POM Cycle: FY xx- FY xx						
dollars in thousands	Prior	FY xx	FY xx	FY xx	FY xx	FY xx	FY xx	FY xx
Development (RDA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Procurement (OPA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Initial Spares (OPA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O&M (OMA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations (OMA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance (OMA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PDSS (RDA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PPSS (OMA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Obsolescence (OPA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Concurrency (OPA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tech Refresh (OPA)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Figure #1 (PM RESP)

Summarize the sources, methodology and rationale used to develop your estimates. Also identify any assumptions you made that impacted them.

NOTE – The first paragraph in each of the following sections (5.1 through 5.10) is a boilerplate definition. You should provide subsequent paragraphs that pertain specifically to your system and elaborate on the corresponding funding projections provided in the chart.

5.1 Development. Development includes funding requirements for labor required to determine the best technical approach, task analysis, documentation, solicitation, developmental contract award, engineering development, prototype development, and other activities required prior to issuing a procurement contract. (Funding Type: RDT&E)

5.2 Procurement. Procurement includes funding requirements for purchasing the required number of system copies, software materials, initial spares and repair parts, new equipment training, and special tools. (Funding Type: OPA)

5.3 Operations & Maintenance (O & M). Operations and Maintenance includes funding requirements for support functions where labor and materials cannot be split-out, e.g. sustainment spare parts and the labor to apply the spare parts, contact teams, configuration management, value engineering, Department of Labor Adjustments, and miscellaneous. (These requirements consist of mostly Fixed Price costs.) (Funding Type: OMA)

Funding - Provided by PEO STRI.

Support - Provided by PEO STRI.

Example - Fix broken hardware (i.e. broken keyboard, mouse, etc...).

5.4 Operations. This category includes funding requirements for operational labor, relocation, travel, and extended operations such as deployments. (Funding Type: OMA)

5.5 Maintenance. Maintenance includes funding requirements for parts and labor costs associated with hardware maintenance, Department of Labor Adjustments, and other miscellaneous costs. (Funding Type: OMA)

5.6 Post Deployment Software Support (PDSS). Post Deployment Software Support includes funding requirements for labor costs and software materials needed to resolve errors encountered in software, and distribute new versions, while the fielding program office continues to develop, or field the system. (Funding Type: RDT&E or OPA)

5.7 Post Production Software Support (PPSS). Post Production Software Support includes funding requirements for labor costs and software materials needed to resolve errors encountered in software after the fielding program office has completed development and fielding, and transitioned the system to sustainment. It also includes the costs for continuing software licenses, software support agreements, and distribution of new versions. (Funding Type: OMA)

Funding - Provided by the PM and/or PEO STRI. This must be negotiated.

Support - Provided by the original Simulator contractors or by PEO STRI.

Example - Fixing Blackboard Compatibility and SCORM Compliance Problems.

5.8 Obsolescence. Obsolescence includes funding requirements with a value over \$250,000 per system to replace and integrate components/technology that have gone out of production, cannot be cost effectively obtained, or are inefficient to sustain and operate, with current military or commercial components/technology. (Funding Type: OPA)

Funding - Provided by PM.

Support - Provided by PM.

Example – Replacing old desktop or laptop computers with new ones because they simply cannot be upgraded anymore.

5.9 Concurrency. Concurrency includes funding requirements for parts and labor costs needed to develop, if required, and modify an existing training system to keep it synchronized with the weapon system it represents. (Funding Type: OPA)

Funding – Provided by PM.

Support – Provided by the original Simulator contractor(s).

Example – This would include updating the Simulator models and lessons as the equipment it simulates is changed and/or modified.

5.10 Technology Refresh. Tech Refresh includes replacement of components that are beyond economical repair / maintenance expenditure limits. It also includes Pre-Planned Product Improvements (P3I) and other upgrades to the systems that increase or modernize performance or capability. (Funding Type: OPA)

Funding – Provided by PM.

Support – Provided by PM.

Example – Instead of letting desktop or laptop computers become obsolete, the PM replaces them every three years. *NOTE: The inclusion of this cost category may negate the need for certain Obsolescence costs.

6.0 Integrated Cost Schedules. The following charts are provided to clarify the projected logistics support costs associated with the Sample Training System.

NOTE – This section will include charts to summarize your funding projections. You may create subsections and additional charts if needed to further clarify your projections. The following sample chart is probably the simplest type of Integrated Cost Schedule applicable to the LCMP and simply sums up the information from the chart presented before.

Integrated Life Cycle Cost Schedule					As of: DATE			
System: Sample Training System					POM Cycle: FY xx- FY xx			
dollars in thousands	Prior	FY xx	FY xx	FY xx	FY xx	FY xx	FY xx	FY xx
RDA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OPA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OMA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

(PM RESP).

7.0 Optional Sections. You may label this section as required and create subsections in order to provide significant information not covered elsewhere in the LCMP. One possible use for this section would be to provide a list of references.

8.0 Appendix.

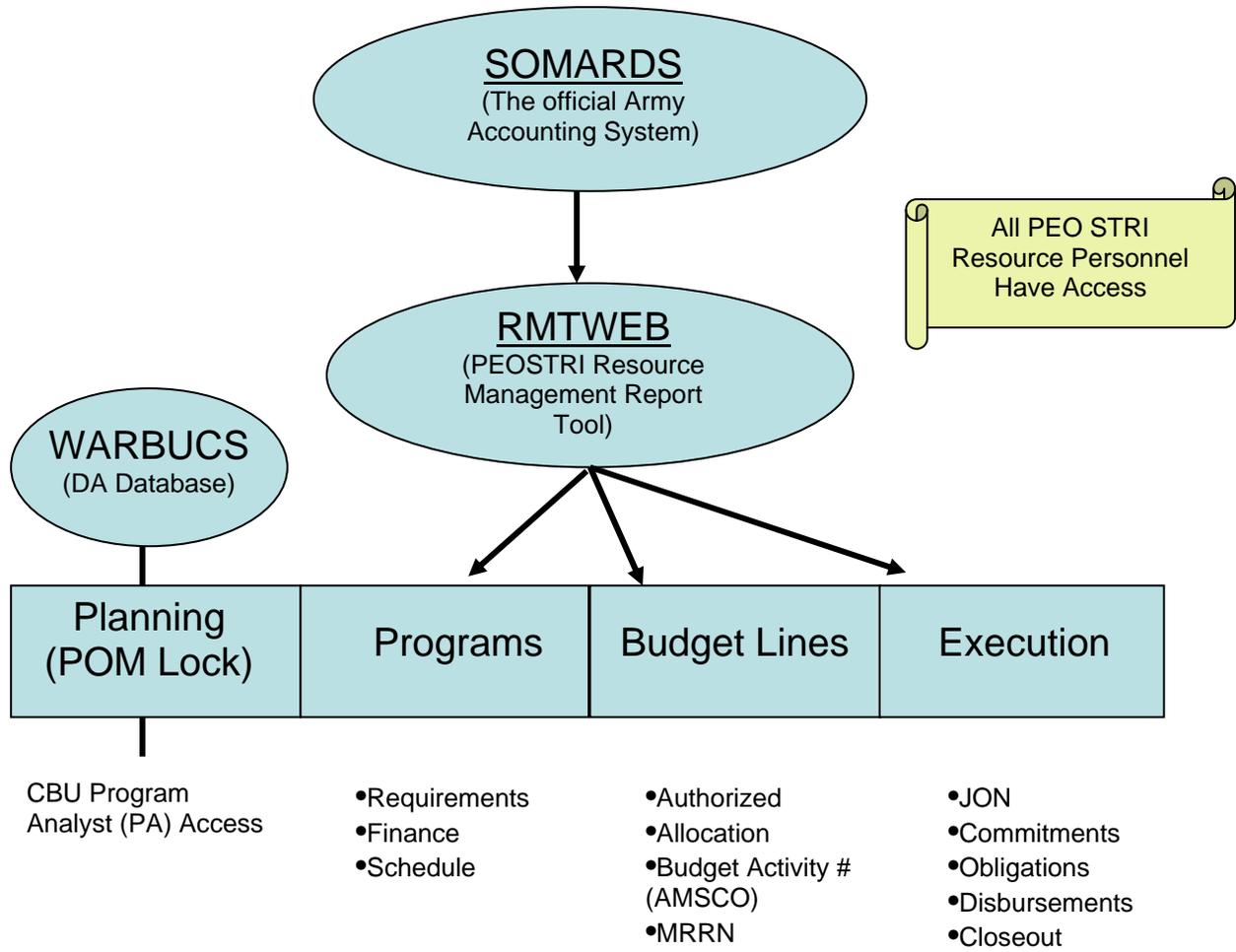
Add those you need to support the information in your LCMP. Try to keep LCMP ATTACHMENT “X”.

LCMP ATTACHMENT “X”

PEO STRI PLANNING, PROGRAMMING, BUDGETING & EXECUTION SYSTEM (PPBES)

(Standard report query capability available through CBU resource personnel on all PEO STRI projects).

NOTE: Specific Project Life Cycle Management Funding profiles should be documented as an Attachment to the LCMP.



LCMP ATTACHMENT “X”

Project Sustainment Support Strategy

A sample of typical PEO STRI Sustainment Transition Planning Support Strategies

Strategy 1 – Project Manager in house

- a. Responsible for development of materiel solutions to meet Army needs.
- b. Production.
- c. OEM Interim Contractor Logistics Support (Non PM Field OPS consolidated contract support).
- d. Coordination through Acquisition Logistician for funding and transition planning.
- e. Project Manager has day-to-day management of systems responsibilities.
- f. Project Manager is the Configuration Manager.
- g. Project Manager is decision maker for all support decisions on developed system.

Strategy 2 – Project Manager managed and concurrent support by PM Field OPS

- a. Project Manager responsible for development and production.
- b. Project Manager utilizes PM Field OPS for hardware and software support.
- c. Project Manager utilizes Acquisition Logisticians for coordination with PM Field OPS for sustainment and support activities.
- d. Project Manager responsible for transition and funding planning.
- e. Project Manager has day-to-day management responsibilities of systems.
- f. Project Manager retains Configuration Management responsibilities.
- g. Project Manager is decision maker for all support decisions on developed systems.

Strategy 3 – Project Manager accountable and responsible for total system life cycle management but day-to-day support and management by PM Field OPS.

- a. Development of systems is complete.
- b. Production of systems is complete.
- c. Project Manager has delegated day-to-day support and management decisions to PM Field OPS.
- d. All will agree on a management review process to fulfill PM responsibility.
- e. Configuration Management responsibilities to be specified based on program dynamics.
- f. Develop plan for Pre-Planned-Product Improvements as part of the LCMP.
- g. Development and production can be managed concurrently between Project Managers and PM Field OPS.

APPENDIX E

Typical System Life Cycle Management Planning Development & Execution Process

Approved LCMP Process

