DEPARTMENT OF NAVY

STANDARD LABOR DATA COLLECTION AND DISTRIBUTION APPLICATION

(SLDCADA)

SYSTEM CHANGE MANAGEMENT

STANDARD OPERATING PROCEDURES

FINAL

DEPARTMENT OF NAVY
SLDCADA
SYSTEM CHANGE MANAGEMENT
STANDARD OPERATING PROCEDURES
APPROVAL

The CCB approved the SOP at the annual board meeting in 2002. Recommended changes will be accepted, considered, and approved or disapproved at the annual board meeting . The CCB members list will be maintained separately from this document by the Program Office.

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Program Manager, Time and Attendance

August 5, 2003

Date

RECORD OF CHANGES

REVISION IDENTIFIER	DATE	FIGURE, TABLE, OR PARAGRAPH NUMBER	A* M D	TITLE OR BRIEF DESCRIPTION	CHANGE REQUEST NUMBER
0.1	4/5/02	Document	A	Initial Draft Creation	QA-001
0.2	7/25/02	Document	M	Revision proposal	QA-002
0.3	8/7/02	Document	M	Revision proposal	QA-003
0.4	8/16/02	Document	M	Revision proposal post CCB	QA-004

*A - ADDED **M** - MODIFIED **D** - DELETED

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1 Introduction

The Department of the Navy (DON) Office of Civilian Human Resources (OCHR) has been engaged in an effort to downsize DON programs used for Time & Attendance (T&A) from the 20 that exist now DON-wide, to one DON application, and to field it to the appropriate DON organizations. The NAVSEA system, "Standard Labor Data Collection and Distribution Application" (SLDCADA) was chosen as the new single DON T&A solution. The initial implementation of SLDCADA has been completed and the system is now under revision control. A Change Control Board Charter has been approved for the SLDCADA T&A system.

This document is the OCHR Time and Attendance Standard Operating Procedures (SOP) for System Change Management (SCM) entities involved in the management and development activities associated with the SLDCADA Application system. The business applications covered by this SOP are the SLDCADA Application functions, which support the Major Claimants throughout the Department of Navy.

1.1 Purpose

This document defines the high-level functional and technical resources, roles, responsibilities, processes, guidelines, and procedures necessary for SCM operational management and maintenance activities pertaining to SLDCADA T&A. It defines the authorities of the SLDCADA Change Control Board (hereafter referred to as the Change Control Board or CCB) for accomplishing functional change control responsibilities. The Time and Attendance Source Data Automation Program Manager (hereafter referred to as Program Manager) is responsible for SCM processes and functional authorities. This document also serves as the basis for policy and procedures for SCM in future business applications implemented within the Department of Navy T&A organizations.

1.2 Scope

Guidelines and procedures in this document will be used to ensure the interests and functional requirements of the initiating organizations are satisfied to the maximum extent possible.

The SOP specifically identifies standard practices, policies, and guidelines for the software change management lifecycle processes and activities used to support the SLDCADA Time and Attendance application. Additionally, the SOP will address the roles/responsibilities of offices and officials responsible for lifecycle processes and activities supporting the T&A effort.

The SOP is applicable to all personnel responsible for the management, requirements definition, analysis, design, development, testing, and maintenance of the SLDCADA T&A technical and functional application.

1.3 Document Overview

This document is organized in the following manner:

- **Section 1 – Introduction** - provides the introduction, purpose, scope, approach, system overview, and document overview.
- **Section 2 – Functional and Technical Organizational Roles, Responsibilities, and Hierarchy** - outlines the organizational roles, responsibilities, and the role relationships.

- **Section 3 – System Change Management (SCM) --** defines required SCM, processes and procedures associated with functional changes to the automated system including, normal and emergency CCB procedures and guidelines.
- **Section 4 – Change Control Board Engineering Change Package Approval Process** – defines the composition and high level processes involving the CCB
- **Section 5 – Summary of Software Development Life Cycle (SDLC) Operational Maintenance (OM) Associated with System Change Management** – defines the requirements and processes involved with SDLC.
- **Appendix A – Acronyms and Glossary** – includes an alphabetical listing of acronyms, abbreviations, and glossary of meanings as used in this document.
- **Appendix B – Workflow and Process diagrams** – high-level workflow/processes for system changes.
- **Appendix C – Contacts** – includes contact information for the Claimant/Change Control Board Points of Contact and other members.
- **Appendix D – Sample Forms** – includes a sample Problem Report, System Improvement Request with Instructions and a sample Engineering Change Proposal Form.

1.4 Referenced DON Standards, Policies, and Guidelines

The following documents establish the authority for the system:

a. Chief Financial Officers (CFO) Act
b. Federal Financial Management Improvement Act (FFMIA)
c. OMB Circular NO A-130, Management of Federal Information resources
d. OMB Circular No. A-127, Financial Management Systems
e. OMB Bulletin No. 98-08 Auditing Requirements for Federal Financial Statements
f. DOD: A Guide to Federal Requirements for Financial Management Systems, (The Blue Book)
g. DON Information Management and Information Technology Strategic Plan

2 Functional and Technical Organizational Roles, Responsibilities, and Hierarchy

The key to effective functional and technical ownership, Quality Assurance (QA), and System Change Management (SCM) of the T&A business applications relies on coordination among the functional, technical, and systems development communities. Each has specifically defined and designated roles and responsibilities.

This section identifies and defines the roles and high-level responsibilities in relation to a general functional hierarchy within the applications' lifecycle activities.

2.1 Time and Attendance Source Data Automation Program Manager (PM)

The Time and Attendance Source Data Automation Program Manager is responsible for the SCMprocesses and chairs the Change Control Board. The Program Manager assures the functional and technical requirement content of all System Version Description (SVD) releases,

reviews the implementation of requirements, provides detailed SVD content to the end user community via the Technical Project Manager and DON Claimants, and subsequently approves the release of the SVD to the next phase of the change process. In addition, the PM reviews and approves all functional portions of the system, and manages all functional end user training, documentation creation and updates.

The PM works directly with the Technical Project Manager and DON Claimants to coordinate the development lifecycle tasks and activities to include budgeting and scheduling, and end user availability.

Specific PM Responsibilities include:

1. Serving as the CCB Chair, whose vote is only used as a tiebreaker in the event of a tie;
2. Ensuring the applications support the organization's business processes and are responsive to the end users' requirements;
3. Soliciting input from the Claimants on all functional decision points and adjudicating where conflict occurs;
4. Acting as liaison between the user community and the Central Design Activity (CDA) technical staff;
5. Expediting, where possible, requests and data calls from the CDA;
6. Expediting, where possible, requests from the end user community;
7. Ensuring the CDA has all the information necessary to accurately maintain the applications' functionality;
8. Providing pertinent information to the Claimant POCs, to ensure that the POCs keep their respective user communities aware of all development tasks, activities, and status;
9. Ensuring the POCs and Core Team(s) complete all assigned tasks in a timely manner;
10. Working with the Technical Project Manager to provide written acceptance and approval on all formal system releases and reviews and approval for all application functional product deliverables;
11. Working with the Technical Project Manager to define training requirements as well as the methodologies to be used to provide the training to the end user community.

The PM manages the Software Change Management Process and serves as the final arbitrator on all Problem Reports (PRs), System Improvement Requests (SIRs), and Engineering Change Proposals (ECPs) moving into the next stage of the SCM lifecycle. The PM, via the CCB Secretary, receives proposed SIRs from the Claimant POCs, the system Help Desk, or the CDA technical staff for action by the CCB.

2.1.1 Change Control Board (CCB) Secretary

The CCB Secretary is associated with the PM organization and supports the PM to assure that the SCMprocesses and procedures are followed. The CCB Secretary also acts as the coordinator among the PM, CDA Staff, Claimant POCs, and the CCB. The CCB Secretary assures that all components of the SIR are completed before converting the SIR to an Engineering Change

Proposal (ECP). The CCB Secretary supports the CCB by forwarding all ECPs for review and decision.

Specific CCB Secretary Responsibilities include:

1. Coordinating all actions requiring decisions by members of the CCB;
2. Acting as the primary source of information on the SCM reporting procedures;
3. Establishing and tracking all CCB records;
4. Coordinating PR/SIR/ECP actions with the PM staff, Claimant POCs, Help Desk, and CDA to assure that all required information is captured in a complete and timely manner;
5. Distribute ECP(s) to CCB members 30 days prior to CCB meetings;
6. Preparing material for the CCB; and
7. Preparing and distributing CCB decisions to all involved parties within 15 business days of approval.

2.2 Department of the Navy (DON) Claimants

The DON Claimants represent the end user community of SLDCADA system. The end user community consists of Timekeepers, Customer Service Representatives, employees and managers of the DON. Throughout the application lifecycle, the Claimant serves as the focal point for the end user community. Through a framework of Claimant commands and activities, the Claimants will disseminate information to their constituents within the user community.

Each Claimant will designate a Point of Contact (POC) to work closely with the SLDCADA PM, as well as their respective Command POC/CSR representatives. Each POC represents their constituent user and management community. A POC may also be asked to serve as a Subject Matter Expert (see section 2.3.1) and to participate on Core Teams (see section 2.3.2). The POC is a critical person whose primary responsibility is to act as a liaison for their organization in the SCMProcess.

Specific POC responsibilities include:

1. Serving as voting members of the CCB
2. Represent the user community and ensuring all SIRs are organizational in nature, improve the applications' functionality for the majority, and work towards process improvement and standardization.
3. Providing functional business process and application specification guidance and information to their constituents;
4. Responding expeditiously to the requests and data calls from the PM and CDA staffs;
5. Ensuring their users or SMEs respond to data calls in a prompt manner;
6. Facilitating the standardization of the functional business processes within their functional business areas;
7. Soliciting input from their functional business areas or SME on all functional decision points and adjudicating where conflict occurs;

8. Encourage activities to investigate and solve apparent local network and connectivity application issues with their internal IT staff before making problem calls to the SLDCADA Helpdesk;
9. Ensuring all PRs and SIRs are accurate and, based on priority, are escalated accordingly;
10. Supporting the PM in the development and review of the functional portions of the formal test and acceptance plans, end user documentation and training requirements, and methodologies to be used for training the user community; and
11. Supporting and participating in conferences, training, and other forums for communication.

2.3 Change Control Board (CCB)

The CCB is chaired by the Time and Attendance Source Data Automation Program Manager, and is comprised of voting members from the DON Claimant Points of Contact (POC). The CCB is supported by: representatives from the CDA and other personnel including, Technical Leads for SLDCADA and other related information systems; activity CSRs and Timekeepers; and IV&V/QA organizations where applicable. SMEs and Core Team members may also be used to support the efforts of the CCB. The PM serves as a voting member only in the case of a tie vote. The POCS represent their individual claimant organization and user community, but work as a team supporting the goals and efforts of the CCB.

The CCB will meet on a regular, virtual, and emergency schedule as directed by the Chair. See Appendix C for contact information for members of the CCB. High-level SCMworkflow and processes involving the CCB, and for the functional components of, will be discussed in Section 3 and Appendix B of this document.

Specific CCB responsibilities include:

1. Defining the proposed functional content of all System Version Description (SVD) releases;
2. Review and validation of the developers' implementation of the functional requirements;
3. Working directly with the PM and CDA to coordinate the development lifecycle tasks and activities on behalf of the user community.

2.3.1 Subject Matter Experts (SME)

Subject Matter Experts (SME) support the CCB and are identified by their Claimant or Activity to assist the Claimant POC in specific functional issues pertaining to the system lifecycle processes. The SMEs are recognized as experts in their functional area. SMEs may be asked by the PM (via the Claimant POC) to act as a Core Team(s) to support specific areas of expertise needed in the processes required during the System Development Life Cycle (SDLC).

Specific SME responsibilities include:

1. Representing their CSR, Timekeeping or other functional area to support the POC's responsibilities and duties as a member of the CCB; and
2. Representing cross-claimant issues in their functional specialty in support of the PM.

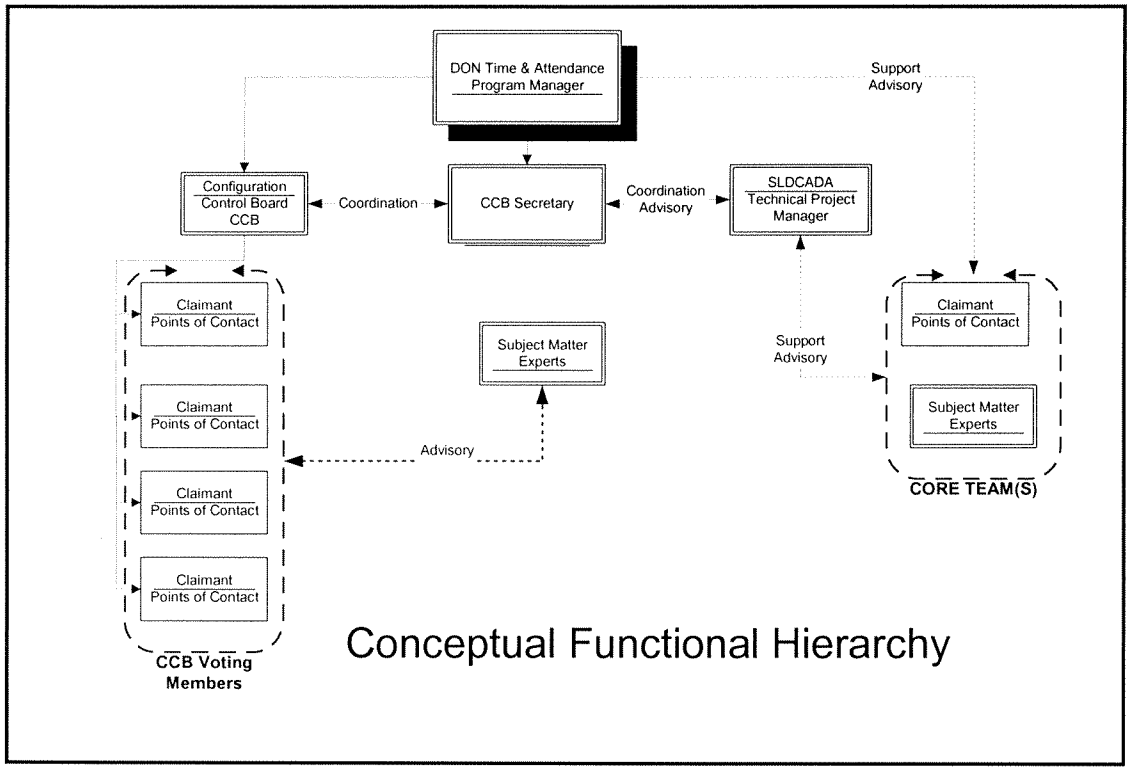
2.3.2 Core Team

A Core Team(s) is an ad hoc working group comprised of end users, specific subject matter experts, and POCs as determined by the PM. Core Teams support processes required during the SDLC. Development activity or PM/POC tasking will determine Core Team existence and structure. Core Team membership can be on a rotational basis, related expertise, and/or subject matter area. Core Teams may be leveraged to review and evaluate the CDA's work in progress throughout the design and development phases of the software development life cycle.

Specific Core Team responsibilities include:

1. Providing additional guidance/direction to the CDA during the analysis and design phases;
2. Participating in Rapid Application Development (RAD) or Joint Application Development (JAD) sessions as required;
3. Supporting the PM and CDA in defining/developing test scenarios to be used to verify/validate functional requirement implementation during informal/formal testing;
4. Participating in user/developer Integration and Test (I&T) activities, formal System Acceptance Test (SAT), and other testing as deemed appropriate by the PM and CDA; and
5. Assisting in the development, review, and acceptance of all functional user documentation and changes to as deemed appropriate by the PM.

Figure 1 Functional Hierarchy



2.4 Technical Hierarchy: Central Design Activity (CDA)

The CDA for the SLDCADA Time and Attendance system provides technical management and oversight for the business applications development and operational activities. The CDA personnel work directly with the PM organization to ensure the business needs of the DON T&A system are satisfied. The CDA personnel work with the PM to ensure all software development activities as well as the operational environments employed complies with all DON mandated guidelines, policies and, procedures.

Specific CDA responsibilities include:

1. Oversees all activities and life cycle phases associated with the SLDCADA system;
2. Ensures SLDCADA adhere to the DoD FMR and DON regulatory mandates;
3. Actively participates in the SLDCADA CCB;
4. Keeps abreast of current and emerging T&A, ERP and other technologies to facilitate SLDCADA competitiveness within the Government and private sectors.

The CDA manages the contractor development staffs and provides directional guidance on all software development activities. In addition to development management, the CDA is responsible for the implementation of and contractor adherence to Configuration Management (CM), Quality Assurance (QA), and Independent Verification & Validation (IV&V) processes and activities.

The CDA is responsible for all aspects of systems design (and associated documentation) overview and guidance; detailed design and coding; test plans, procedures, and reports; software unit testing; and preliminary Computer Software Configuration Item (CSCI) testing for all ECPs.

2.4.1 CDA Technical Project Manager (TPM)

The CDA TPM works directly with the PM on all aspects of the applications' development lifecycle task/effort-planning activities to include budgeting, scheduling, and end user or SME availability requirements.

The TPM is the overall technical Configuration Manager (CMGR) for the SLDCADA application software development and ensures the development staffs implement internal contractor CM in accordance with CDA CM requirements.

The TPM, with the support of the development staff, defines the technical content of all System Version Description (SVD) releases, reviews the implementation of approved technical ECP requirements, and participates in the CCB in an advisory role. The TPM is responsible for ensuring that the development staffs complete all ECP specifications. The TPM reviews and approves all SVD technical documentation and/or updates to existing documents to include technical portions of the formal SAT plans. The TPM supports the PM's application functional training as required.

Specific TPM Responsibilities include:

1. Obtaining business process functional requirements from the PM and ensuring the development staffs implement those requirements and the applications support the organization's business processes and are responsive to the end users' requirements;
2. Obtain the PM's approval on any functional requirement implementation deviations;
3. Ensure the development staffs adhere to the defined functional requirement and related business rules;
4. Respond , within 10 days, to data calls from the PM;
5. Ensuring the development staffs have all the information necessary to accurately implement and maintain the user community's required application functionality;
6. Provide all pertinent information relating to development tasks, activities, and statuses to the PM;
7. Ensure the development staffs complete all assigned tasks in a timely manner;
8. Ensure the development staffs activities comply with CDA policies, guidelines, and procedures; and
9. Provides written acceptance and approval on all technical deliverables including the System Version Description.

2.4.2 Software Engineers (SEs)

Software Engineers (SEs) are the CDA TPM's development staff and consist of programmers, database developers, engineers, testers, and project management personnel. The SEs work closely with the TPM throughout the requirement implementation lifecycle obtaining functional approval at all decision points. The SE translates the requirements defined by the PM and user community into design criteria and implements the design criteria. The SE design solution will be a TOTAL solution, in other words all designs will encompass down stream life-cycle needs, designs will be "top down" (concept –> system ->subsystem), and the design will balance cost, schedule, performance, and risk. The SE will verify and document that the design solutions satisfy the end user needs and requirements.

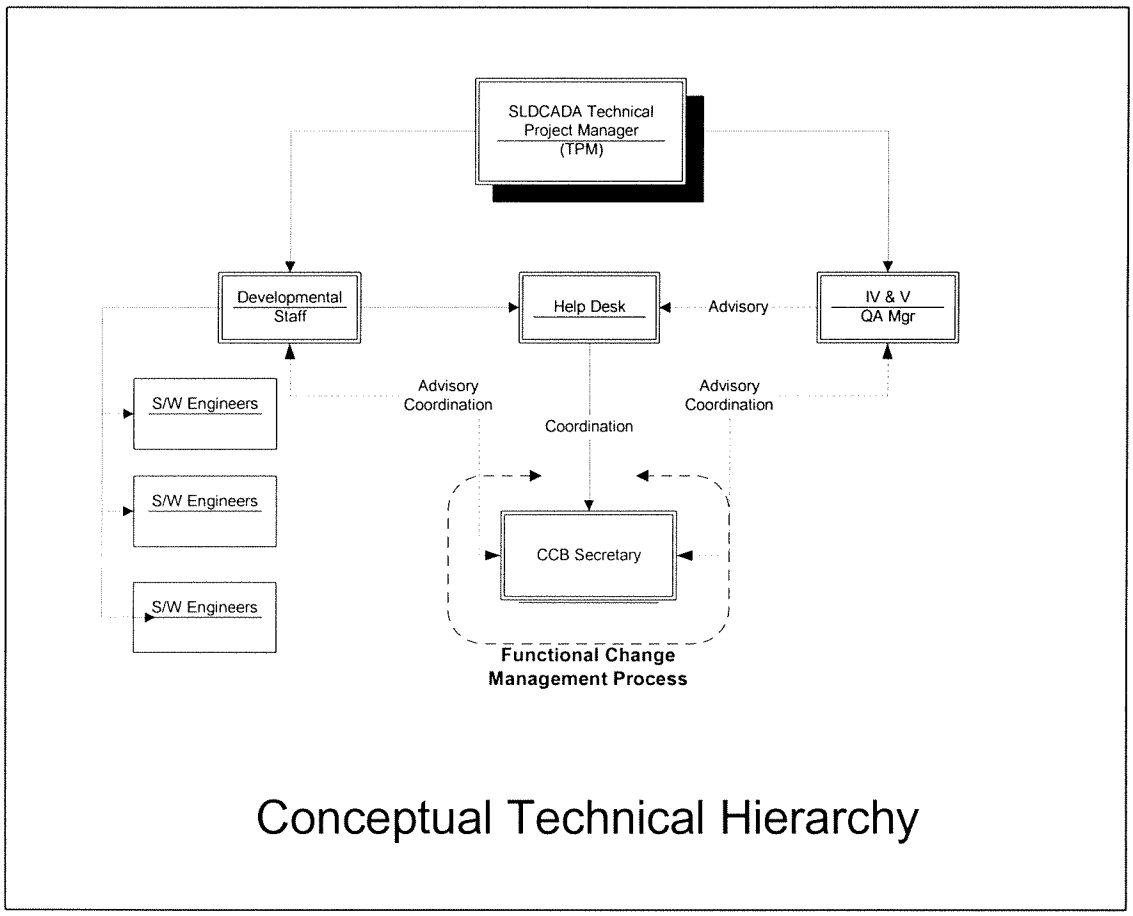
The SE developer may support JAD and RAD sessions sponsored by the PM with the functional user representatives during analysis, design, and development activities. The SEs actively participate in the development of test scenarios and training materials.

The Specific Software Engineer Responsibilities include:

1. Evaluating proposed functional SIRs impact on the SLDCADA application as well as across the system operational architecture from both an Operational & Maintenance (O&M) and software engineering perspectives, including cost and schedule information and documenting the evaluation for implementation and CCB purposes;
2. Evaluating proposed SIRs and providing technical assessments to form proposed ECPs to be considered by the CCB. These assessments will address established baselines, providing impact assessments, findings, and recommendations to the TPM;
3. Implement and utilize Government approved QA and CM procedures throughout all development lifecycle activities;

4. Prepare all technical system documentation required by the CDA policies and guidelines;
5. Provide progress status information, as required, on all system development tasks, activities, and deliverables.

Figure 2 Technical Hierarchy



3 System Change Management (SCM)

The key to supporting effective DON standard T&A business applications is the coordination of SCMprocesses among the functional, technical, and systems development communities. Each of these communities has specifically defined and designated roles and responsibilities. Appendix B contains work process and flow diagrams depicting the process described in the following sections.

3.1 Problem Report Process

System Change Management starts when a member of the end user or technical community cites an operational problem or failure in the current system, or perceives the need for an enhancement to the system's functionality, capabilities or technology. The process is initiated with the submission of a Problem Report (PR) to the activity Command POC/CSR. The nature of the PR will dictate which path the process follows: Enhancement Resolution or Problem Resolution. The Command POC/CSR may direct the end user PRs not requiring system enhancements to the SLDCADA Helpdesk, resolve problem locally, or initiate actions to notify their Claimant POC. All enhancement PRs generated within user community will be submitted via the end user's Command POC/CSR and Claimant POC. All enhancement PRs generated from the technical staff will be submitted via the Technical Project Manager. All End User and Technical PRs will be evaluated against a set of criteria to determine if the PR represents a valid enhancement requirement, a system operational problem, or identifies a flaw in training or system documentation.

The following scales identify the severity and priority levels associated with Problem Reports:

1. **Severity** of the PR: rating the seriousness of the problem under criteria.
    a. **Crisis** – A crisis impacts the ability to conduct business and no procedural workaround exists. (A change needed to correct a fatal or potentially fatal system interruption) ;
    b. **High** – A high impact problem indicates significant business impact; the system is usable, but severely limited. (Not an emergency, but a change needed to ensure data integrity is maintained or a like situation where system will be at risk);
    c. **Moderate** – A moderate impact problem involves partial, non-critical functionality loss or a reasonable workaround the problem has been provided. A "fix" may be provided in a future release. (A change needed as soon as possible, a functionally acceptable "work around" exists until the problem can be addressed);
    d. **Low** – A low impact problem is a "how to" or an advisory question (A change that can be implemented within normal system maintenance processes); or.
    e. **Enhancement – A** change that would provide additional or new functionality and does not meet any of the criteria a through d.

3.1.1 Resolution of Problem Reports

At the end of the review, the Command POC/CSR, Claimant POC, Help Desk, or TPM as appropriate, will annotate their approval or disapproval with an explanation of their decision. This information will be shared with the end user or technical staff who submitted the PR:

a. Emergency – Problem Reports that have Severity assessed as Crisis or High will be immediately referred to the SLDCADA Helpdesk or TPM for resolution by the Command POC/CSR.

b. **System Defect/Enhancement** – Problem Reports with any other severity level, will be referred to the Command POC/CSR and Claimant POC for resolution via System Improvement Request (SIR) processes.

The entire SCM process will be automated and Web based where possible. *(See Appendix B, Figure 3 Generation of System Improvement Request Process Flow) (See Appendix D, Figure 8, for Problem Report Format and Content)*

3.2 Emergency Problem Reports (PR)

Problem Reports that have been reported to the SLDCADA Helpdesk or forwarded to a Claimant POC as an Emergency will be expedited for immediate resolution. The SLDCADA Helpdesk or TPM will coordinate with the Claimant POCs and SLDCADA PM as required to resolve the Emergency. Emergency PRs will be submitted via the activity Command POC/CSR or directly to the SLDCADA Helpdesk. *(See Appendix B, Figure 4 Emergency Fix Process Flow).* Resolution of Emergency PRs will be reported at regularly scheduled CCB meetings

3.3 System Defect System Improvement Request (SIR)

System Defect Problem Reports represent system defects, omissions in documentation, or other more serious system failures. Problem Reports that have been forwarded to a Claimant POC as a System Defect will be reviewed by the Claimant POC. The Claimant POC will coordinate their decision to proceed or reject the System Defect PR with the Activity Command POC/CSR.

Examples of the Claimant POC functional evaluation criteria that may be used are:

1. Functional Completeness and Accuracy of proposed enhancement;
2. Impact on operational continuity and business operations.
3. Impact or Relationship to other system components or processes;

If supported, the System Defect PR will be converted to a System Improvement Request (SIR) and entered in the SLDCADA SIR Repository (http://www.sldcada.navy.mil) for processing. The Claimant POC will assure that all functional information is completed before submitting the SIR.

The TPM and development staff will assess the System Defect SIR and complete all required information needed for a technical assessment. The TPM will convert the SIR to an Engineering Change Proposal for consideration by the CCB and notify the CCB Secretary. The TPM will determine when, based on severity, the system defect will be corrected. The TPM will provide the CCB Secretary System Defect SIR information, which will be presented for informational purposes at the next scheduled CCB meeting. *(See Appendix B, Figure 5 System Defect ECP Process Flow)*

3.4 Enhancement System Improvement Request (SIR)

Problem Reports that have been forwarded to a Claimant POC as an Enhancement will be reviewed by the POC. The Claimant POC will coordinate their decision to proceed or reject the Enhancement PR with the Activity Command POC/CSR. The Claimant POC will use evaluation criteria similar to that described in section 3.3. Additional evaluation criteria will include:

1. Application to DON or SLDCADA business operations;
2. Benefit and Implementation impact of adopting the enhancement; or
3. Severity/priority level accuracy of the enhancement

If supported, the Enhancement PR will be converted to a System Improvement Request (SIR) by the Claimant POC and entered in the SLDCADA SIR Repository (http://www.sldcada.navy.mil) for processing. The Claimant POC will assure that all functional information is completed before submitting the SIR.

The TPM and development staff will assess the Enhancement SIR and complete all required information needed for a technical assessment. The TPM will convert the SIR to an ECP for consideration by the CCB and notify the CCB Secretary. The CCB Secretary will assure all functional and technical information is captured in the ECP and begin the normal SCM process for evaluation. *(See Appendix B, Figure 6 Enhancement ECP Process Flow)*

3.5 Engineering Change Proposals (ECP)

An ECP is an extension of the SIR, adding more detailed information on technical alternatives, approaches, costs and timeframes. Responsibility for managing the ECP is assigned to the Technical Project Manager (TPM). The TPM will convert all Enhancement SIRs to ECPs before review by the CCB. The CCB Secretary will coordinate completion of ECPs with the appropriate functional and technical staff and prepare ECP packages for CCB review and decision.

The CCB Secretary will collect all information needed to complete and assess the ECP by:

1. Coordinating with the appropriate Claimant POCs, designated SMEs, or PM, as needed, to complete collection of functional evaluation criteria;
2. Coordinating with the Technical Project Manager, CDA Technical Staff, and PM, as needed, to complete the technical assessment information required. Technical assessment information will include:
    a. Costs associated with the implementing the proposed ECP;
    b. Time and schedule impact associated with implementing the proposed ECP; and
    c. Impact assessment on other components of the system, including other programmatic changes that may be required to implement the proposed ECP.

3.6 Engineering Change Proposal Review Schedule

The Chair of the CCB will determine the schedule for addressing ECPs and convening the CCB for review and approval of the ECPs. The Chair will schedule formal CCB meetings to address System Enhancements. Emergency and System Defect Problem Reports will be reviewed at scheduled CCBs for potential long-range impact of problems and solutions.

4 Change Control Board Engineering Change Package Approval Process

The CCB will follow specific processes for approval of Engineering Change Packages. The results of the CCB decision will be documented and release schedules, training or documentation will be scheduled.

4.1 CCB Recommendation and Approval Process

The CCB Secretary will coordinate the preparation and presentation of ECPs to the CCB for consideration. The completed ECPs will be provided to the membership as far in advance of the virtual or scheduled CCB meeting as practical, but not later than 30 days prior to the next scheduled CCB meeting. The decision to approve, reject, or postpone an ECP will be determined by a vote of the CCB membership. The PM votes only in cases of a tie. The Technical Project Manager (TPM) will address any technical questions or issues. The Claimant POC sponsoring the original System Improvement Request (SIR) will address any functional questions or issues. In cases where the original SIR was requested from the SLDCADA Helpdesk, TPM, or Program Manager, either the TPM or PM will address functional and technical issues as appropriate. Subject Matter Experts or Core Team members may be asked to address specific functional issues and recommendations. Recommendations for corrective actions may include system changes or enhancements, user training, or improved documentation.

The decision process will be automated to the extent practical. The criteria used to make the decision will include:

High Level Criteria TBD

The CCB Secretary is responsible for coordination and recording of all discussions and decisions made by the CCB. Decisions will be published to all members and posted on the SLDCADA web site. *(See Appendix B, Figure 7 CCB Recommendation & Approval Process Flow)*

5 Summary of Software Development Life Cycle (SDLC) Operational Maintenance (OM) Associated with System Change Management

During System Change Management, the PM monitors the functional requirements baseline and conversely the TPM monitors the technical performance baseline to ensure the applications support the user community's day-to-day business operations. Any necessary system modifications identified by functional or technical personnel are incorporated using the defined SCM processes in this SOP, and separate Configuration Management Plan (CMP), QA, and IV&V processes and procedures. Typically, multiple approved ECPs will be bundled into a planned software release, identified by a version number increase and documented in a System Version Description (SVD).

5.1 System Version Description (SVD) Release Packages

There are two types of SVD release packages for System Defects and Enhancements. (Emergency ECPs are discussed in section 3.2):

5.1.1 Incremental/Incident System Version Description Release Packages

- Incremental SVDs are generally used for small version updates

- Are done on an as- required basis
- Usually address System Defects, legislative/regulatory date driven mandates or system logic errors that impact data integrity or day-to-day business processes
- Lead Site Verification Test (LSVT) is the functional acceptance methodology used for an Incremental SVD release
- LSVT is conducted at a specific site with the users at the site being the test verification / validation medium

5.1.2 Major System Version Description Release Packages

- Major SVDs (MSVD) are generally used for large version updates
- Are planned version updates usually occurring twice a year, but the timing may be adjusted to meet system and other development factors
- Contain and engineering corrections for System Defects, System Enhancements, and other functional or technical corrections
- System Acceptance Testing (SAT) and BETA are the functional validation/verification testing vehicles used with test participants for SAT being invited from Claimants and selected activities

Appendix A
Glossary, Acronyms and Abbreviations

Appendix A: This appendix includes an alphabetical listing of acronyms, abbreviations, and glossary of meanings as used in this document.

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CCB	Change Control Board
CDA	Central Design Activity
CM	Configuration Management
CMP	Configuration Management Plan
CSCI	Computer Software Configuration Item
DON	Department of the Navy
ECP	Engineering Change Proposal
ISVD	Incremental/Incident System Version Description
I&T	Integration and Test
JAD	Joint Application Development
LSVT	Lead Site Verification Test
MSVD	Major System Version Description
OCHR	Office of Civilian Human Resources
OM	Operations and Maintenance
POC	Point(s) of Contact
PM	Program Manager
PR	Problem Report
QA	Quality Assurance
RAD	Rapid Application Development
SAT	System Acceptance Test
SCM	System Change Management
SVD	System Version Description
SDLC	System Development Life Cycle
SE	Software Engineer
SIR	System Improvement Request
SLDCADA	Standard Labor Data Collection and Distribution Application
SME	Subject Matter Expert

Acronym/Abbreviation	Definition
SOP	Standard Operating Procedures
TPM	Technical Project Manager

Glossary

Change Control Board (CCB)	The governance structure empowered to consider functional changes to a system (i.e. ECPs) and recommend approval or disapproval to the system owner. The CCB operates under a formal charter with a defined organizational structure and operating rules to govern its conduct and decision-making processes.
Configuration Management (CM)	The overall discipline of identifying, documenting, controlling changes to, and recording the technical scope and components of a system to enable its effective life cycle management. Change management is a subset of the CM discipline, which also includes Configuration Identification, Change Control, Configuration Documentation, and Configuration Status Accounting.
Engineering Change Proposal (ECP)	ECPs are the formal requests to change the current approved baseline configuration. ECPs are documented and routed through a formal approval channel and include detailed descriptions of such factors as cost, priority, complexity that will be considered by the change control authority. ECPs start out as Problem Reports (PRs) and System Improvement Requests (SIRs) which supply the functional description of the system defect or enhancement being addressed.
Problem Report (PR)	A form used in the initial process of identifying a needed enhancement, defect or "bug" in the system software or documentation. Any user detecting the problem or defect can initiate a PR via activity and claimant POCs. It normally provides a complete description of the problem and the conditions that existed at the time it was detected.
System Improvement Request (SIR)	A form used in the process of identifying a potential functionality change in system software identified by a Problem Report. A SIR is filled out by any DON Claimant POC and is routed for consideration to the TPM and PM. It then goes through an initial checklist of criteria to determine whether it should be given status as an ECP.

System Acceptance Testing (SAT)	A quality assurance process performed during the development of a system to provide a basis for a system owner to accept, accept with conditions, or reject a system presented for deployment. SAT is performed under a formal process that includes rigorous test planning, test case development, and test results. The planning includes identifying what and how to conduct the test, and the formation of the team and its responsibilities to perform, witness, and document the test for contractual acceptance.
System Change Management (SCM)	The entire process of identifying, prioritizing, adjudicating, and controlling the inputs that are received to modify application software for a baseline system. It is one element of the Configuration Management discipline. The functional owner of the application is the lead for change management, although it will involve technical, contractual, and financial considerations as well

Appendix B

Workflow and Process Diagrams

Appendix B: This appendix includes workflow and process diagrams for the System Change Management Program

Figure 3 Generation of System Improvement Request

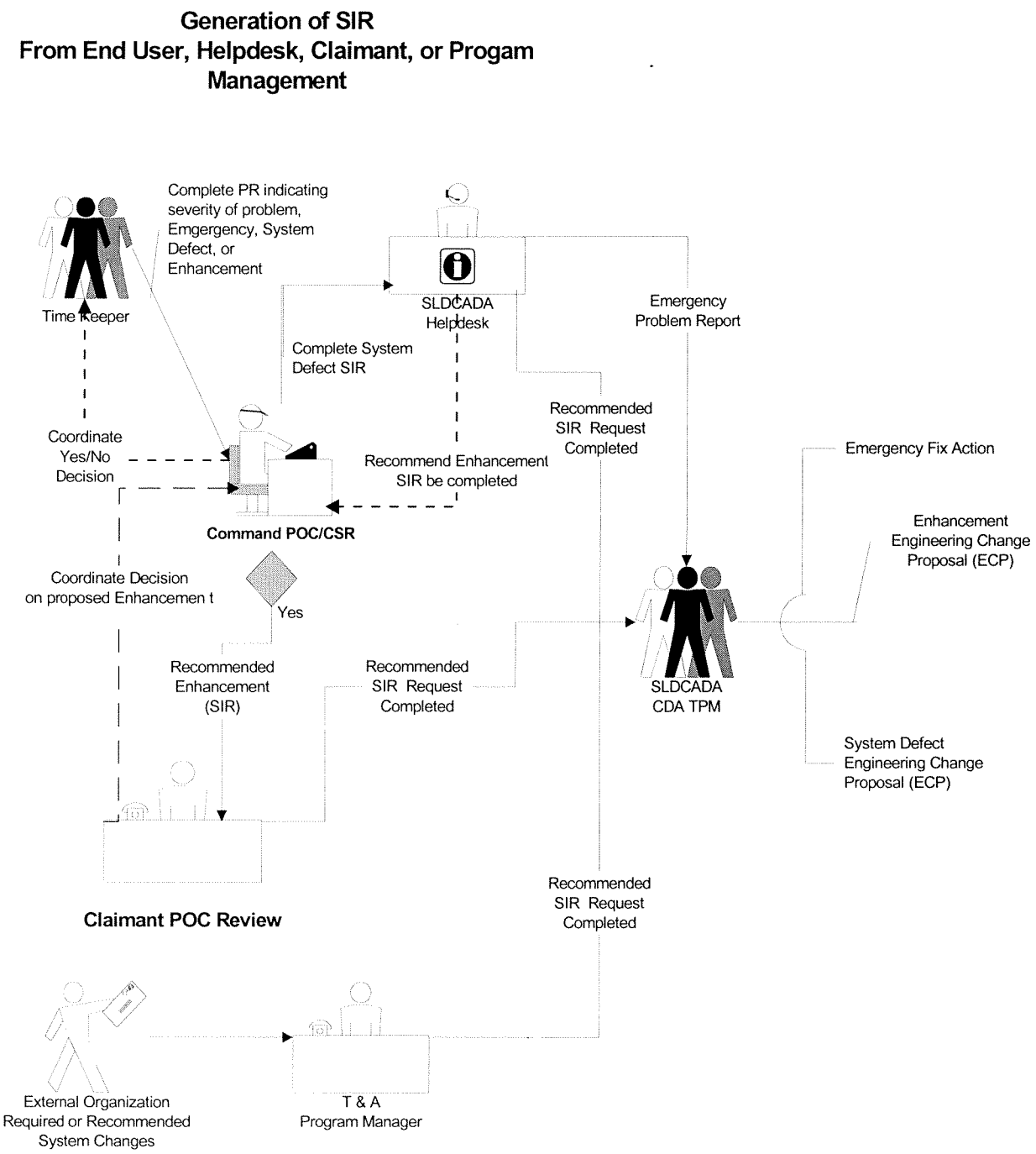


Figure 4 Emergency Fix Process Flow

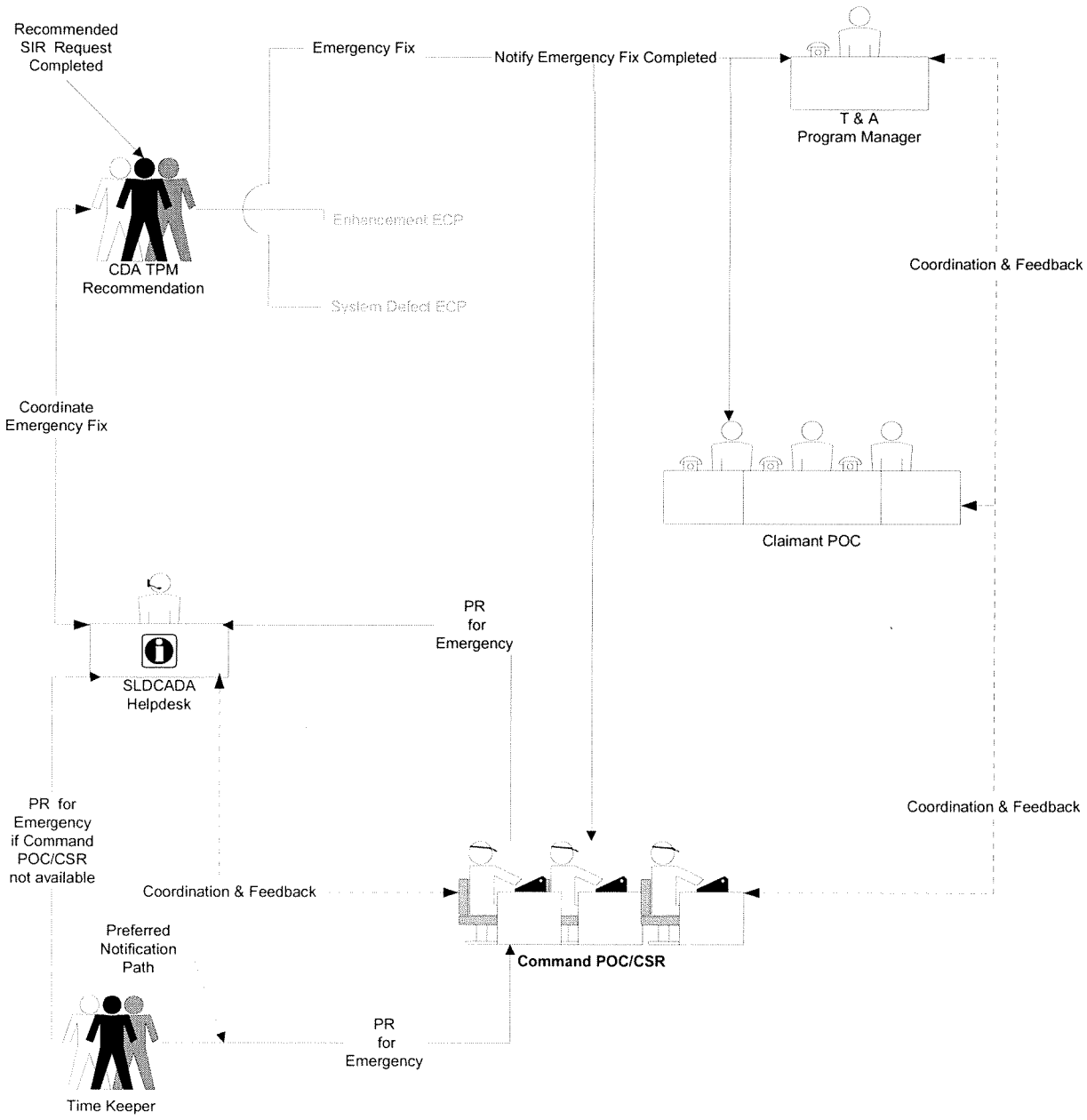


Figure 5 System Defect ECP Process Flow

System Defect Change Management Flow

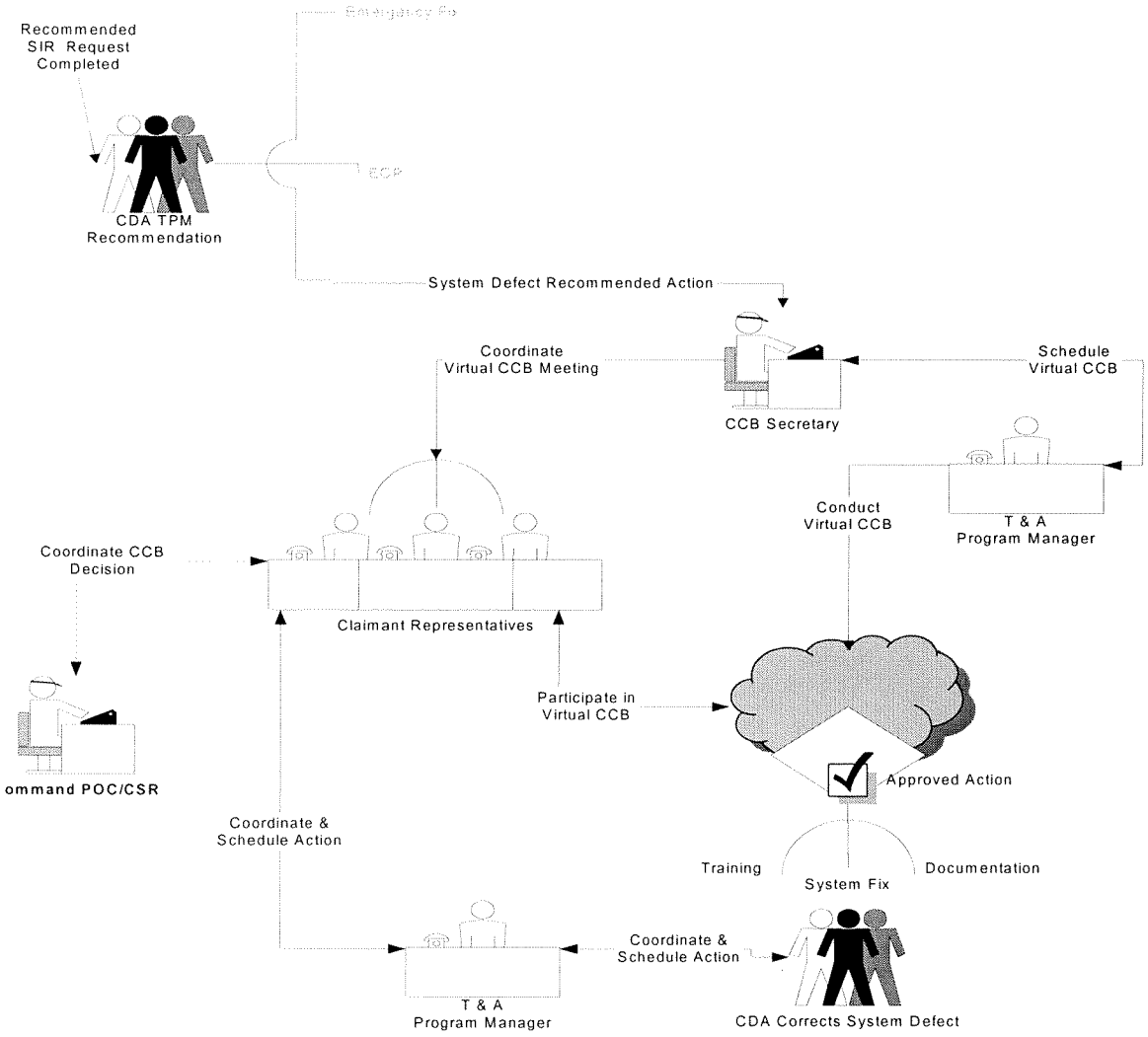


Figure 6 Enhancement ECP Process Flow

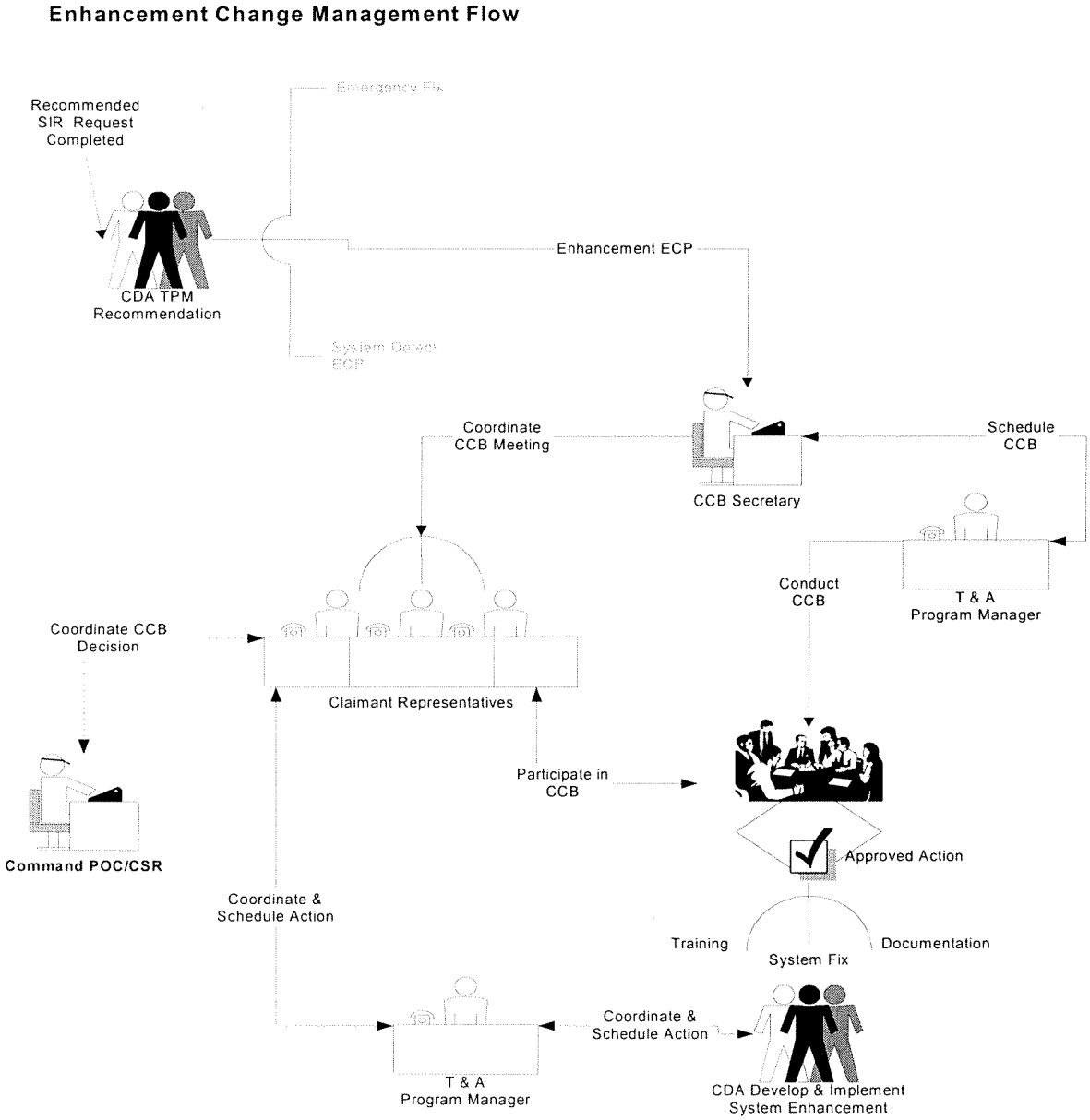
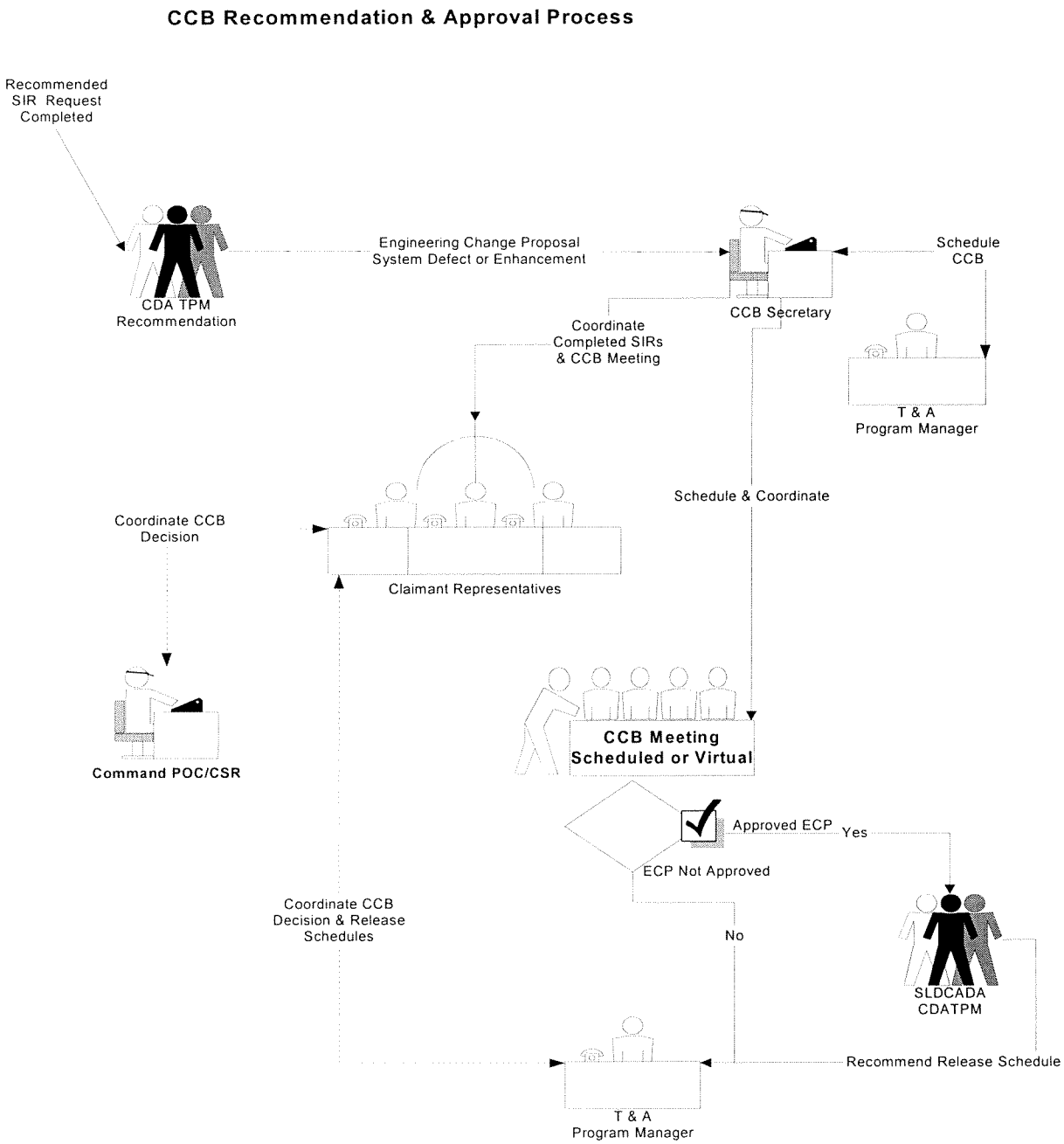


Figure 7 Change Control Board Recommendation & Approval Process



Appendix C

DON Major Claimant
Points of Contact

Appendix C: This appendix includes contact information for the Change Control Board (CCB) Points of Contact and other members.

CCB Members

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Appendix D

Sample Forms

Appendix D: This appendix includes sample Problem Report and Engineering Change Proposal Forms.

Figure 8 PROBLEM REPORT FORMAT

PROBLEM REPORT

PROBLEM REPORT #_____ DATE __ / __ / ____

ORIGINATOR_____ PHONE.EXT_____

PROGRAM_____ RELEASE VERSION _____

ATTACHMENTS/DESCRIPTION INCLUDED (Y/N) _____

REPORT TYPE (1-6) _____

1 - Coding error 4 – Documentation

2 - Design issue 5 – Hardware

3 - Suggestion 6 – Query

SEVERITY (1-5) _____

1 – Crisis 4 – Low

2 – High 5 – Enhancement

3 – Moderate

PROBLEM SUMMARY

_____

_____

_____

CAN YOU REPRODUCE THE PROBLEM? *(Y/N)* ___

PROBLEM AND HOW TO REPRODUCE IT

_____

_____

_____

SUGGESTED FIX (optional)

_____

_____

_____

PROBLEM REPORT – Cont.

ITEMS BELOW ARE FOR USE ONLY BY THE CLAIMANT POC

FUNCTIONAL AREA _____

COMMENTS

_____

_____

_____

_____

STATUS (1-5) _____

1 – Pending 2 – SIR Submitted 3 – Helpdesk Notified 4 – Withdrawn by User

5 – Disagree with suggestion

RESOLVED BY (Claimant POC) _____ DATE __ / __ / ____

RESOLUTION COMMENTS_____

PROBLEM REPORT INSTRUCTIONS

1. TITLE

Problem Report

2. DESCRIPTION/PURPOSE

The Problem Report shows essential data on each software problem detected. It also shows errors or omissions on documentation. Severity, priority, and category classify software problems. Sufficient detail of the problem shall be reported to enable analysis and isolation or replication if necessary.

3. APPLICATION INTERRELATIONSHIP

Problem Reports are used to record and report problems found throughout development and testing. They are also used to report errors or omissions found in documentation. The Problem Report is the basic input to the quality assurance program during the test and acceptance phase of the development effort. The Problem Report that interfaces with other systems requires joint resolution action.

4. PREPARATION INSTRUCTIONS

1. **Problem Report #:** The Problem Report # assigned for control purposes.

2. **Date:** The date form is prepared.

3. **Originator:** Printed name of person originating the Problem Report.

4. **Phone Ext:** Phone number/ext. of the person originating the Problem Report

5. **Program:** Identify which program has the problem

6. **Release Version:** Identify the RELEASE VERSION being used.

7. **Report Type:** Report Type describes the type of the problem found.

    - Coding Error: The program behaves in a way that it was not intended to.

- Design Issue: The program works as intended but there is/are problem(s) in the program design.
- Suggestion: Suggestion(s) to improve the program although there is no problem(s) in the program.
- Documentation: The program doesn't behave as described in the user manual, or test procedures.
- Hardware: Faulty interactions between the program and some type of hardware.
- Query: The program does something you don't understand or don't expect.

8. **Severity:** Reports the rating of seriousness of the problem. The following scale identifies the severity levels associated with the problem reports:
   - Crisis - A crisis impacts the customer's ability to conduct business and no procedural workaround exists. The system or application has failed.
   - High - A high impact problem indicates significant business impact to the customer. The program is usable, but is severely limited.
   - Moderate - A moderate impact problem involves partial, non-critical functionality loss or a reasonable workaround to the problem has been provided. A "fix" may be provided in a future release.
   - Low - A low impact problem is a "how to" or an advisory question.

9. **Priority Level:** The Priority Level assigned by the DON Claimant for all problem reports. Here's the scale to be used when assigning priority for the problem reports.
   - Emergency – a change needed to correct a fatal or potentially fatal system interruption;
   - Urgent – not an emergency, but a change needed to ensure data integrity is maintained or a like situation where system will be at risk;
   - Critical – a change needed as soon as possible, a functionally acceptable "work around" exists until the problem can be addressed;
   - Routine – a change that can be implemented within normal system maintenance processes; or
   - Enhancement – a change that would provide additional or new functionality and does not meet any other priority level.

10. **Attachments:** Identify and List any attachments that are included with the problem report. This may be a disk containing test data, a keystroke capture or a set of macros that will generate the test case, a printout from the program, a memory dump, or a memo.

11. **Problem Summary:** A description of the problem reports. A word picture of events leading up to the coincident with the problem.

12. **Can you reproduce the problem:** Identify whether the problem can be reproduced or not.

13. **Problem and How to Reproduce It:** Explain the reasons for this being a problem. Describe step –by-step instructions to reproduce the problem. Describe all the steps and symptoms including error messages.

14. **Suggested Fix:** Explain the suggested fix for the problem. Leave it blank if a fix cannot be suggested.

16 **Functional Area:** Identify the functional area being represented by the problem report.

17. **Comments:** Add any comments to describe why a problem is being deferred or how it was fixed.

18. **Status:** Determine the status of the problem report.

    - Pending – requires more information to understand issue before assigning Report Type, Severity, or Priority;
    - SIR Submitted – POC has submitted SIR via SLDCADA Technical Project Manager instructions;
    - Helpdesk Notified – Emergency or other issue that can be resolved by SLDCADA Helpdesk without SIR;
    - Withdrawn by User – issue or problem resolved by user or withdrawn for other reasons;
    - Disagree with suggestion – Cannot support request, returned to user with comments.

19. **Resolved by:** Name of the DON Claimant POC who resolved the problem report.

20. **Date:** The date the problem report was resolved.

21. **Resolution Comments:** List any comments to explain the resolution provided for the problem report.

Engineering Change Proposal Format

Figure 9 Engineering Change Proposal Format

ENGINEERING CHANGE PROPOSAL

1. SYSTEM/PROJECT NAME	2. DATE PREPARED	3. ECP NUMBER
4. TITLE OF ECP		
5. ORIGINATOR	6. COMPONENT AFFECTED	
7. DESCRIPTION OF PROBLEM/NEED FOR ECP		
8. DESCRIPTION OF RECOMMENDED ECP		
9. ALTERNATIVES/IMPACT IF NOT APPROVED		
10. BASELINE AFFECTED	11. DOCUMENTATION/SPECIFICATIONS AFFECTED	
12. OTHER SYSTEMS, CONFIGURATION ITEMS, CONTRACTORS AFFECTED, ETC.		
13. EFFECT OF ECP ON SYSTEM EMPLOYMENT, ILS, TRAINING, EFFECTIVENESS, ETC.		
14. NET EFFECT ON SYSTEM RESOURCES (E.G., PROCESSING TIME, MEMORY, DISK SPACE)		
15. DEVELOPMENTAL REQUIREMENTS		
16. ECP EFFECTIVITY POINT	17. DATE APPROVAL NEEDED BY	
18. THIS ECP MUST BE ACCOMPLISHED BEFORE/WITH/AFTER THE FOLLOWING ECP/PR(S)		
19. SUPERSEDES OR REPLACES ECP/PRs		
20. COST, SCHEDULE OR INTERFACE IMPACT o NO o YES		
21. CONTRACTOR CCB ACTION o Approve o Disapprove o ECP		
AUTHORIZED SIGNATURE	TITLE	DATE
22. GOVERNMENT CCB ACTION o No Action Required o Approve o Disapprove o Withdrawn		
RETURNED TO CONTRACTOR FOR		
GOVERNMENT AGENCY/TITLE	SIGNATURE	DATE

Figure 10 SLDCADA SYSTEM IMPROVEMENT REQUEST INPUT FORM (Website)

Friday - July 26, 2002

Last Modified: September 15, 2000

Submit a System Improvement Request (SIR)

Please fill out the form below to submit a System Improvement Request.

SYSTEM IMPROVEMENT REQUEST

Originator:

System ID:

Phone:

Local Tracking: Priority:

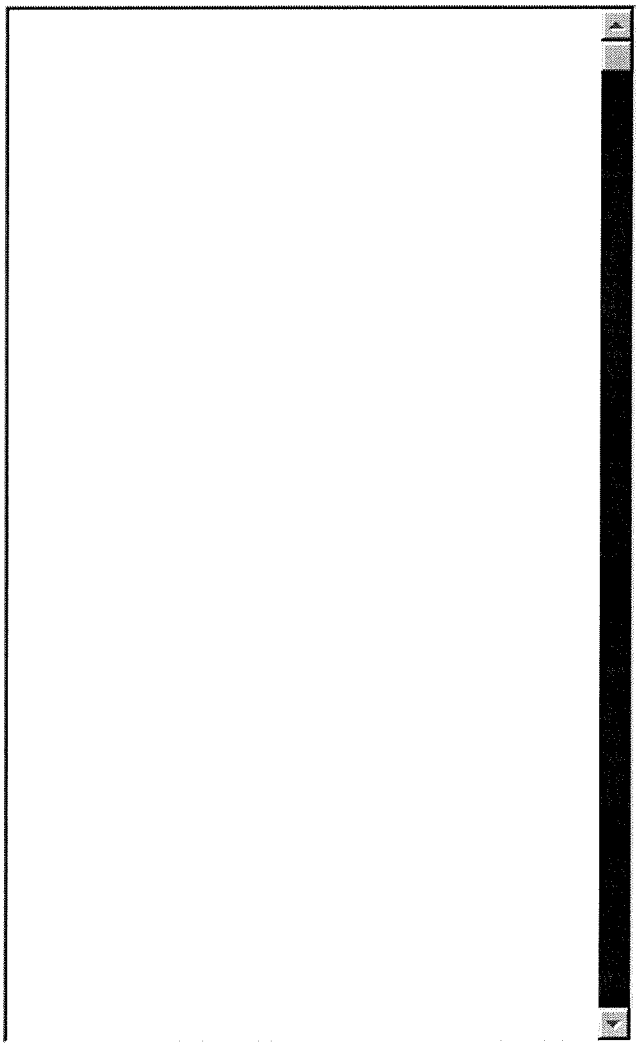
Activity:

Date Submitted: 9/15/200

Program Name or Form ID:

Program or Form Version:

Short Title:



Problem Description:

CLEAR ALL

NOTES AND COMMENTS