APPENDIX "G"

PMA260 CONFIGURATION MANAGEMENT PLAN

PMA260
CONFIGURATION MANAGEMENT PLAN
FOR
AVIATION SUPPORT EQUIPMENT

10 July 2006

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Executive Summary

The Aviation Support Equipment Configuration Management Plan (CMP) was developed using established NAVAIR procedures to be executed within the framework of the Integrated Product Team (IPT) structure, placing the responsibility for CM with the PMA-260 Configuration Manager and CM compliance with the Program Managers/IPT Leads in charge of the particular change(s). The PM/IPT Leads will coordinate and provide oversight of all CM activities relating to their design changes and the specific configuration items (CI) controlled by the following organizations:

- The Common Ground Support Equipment (CGSE) Integrated Program Team (IPT) shall be responsible for maintaining configuration control of all CGSE Configuration Items (CI's).
  - The Fielded Systems IPT personnel located at Lakehurst, NJ shall be responsible for CM with respect to the Common Ground Support Equipment (CGSE) systems including engineering drawings and specifications needed to define the baseline equipment.
- The Consolidated Automated Support System (CASS) IPT shall be responsible for maintaining configuration control of the various configurations of CASS and RTCASS.
  - The Fielded Systems IPTs, NSWC-Crane Division (NSWC-CD), NAVAIR NI, and NAVAIR JAX, shall be responsible for maintaining CM of fielded Test Program Sets (TPS) as Peculiar Support Equipment (PSE) once transition has been completed.
- Due to the diverse nature of the equipment designed by PMA-260, there are a number of various activities that will be designated as Software Support Activities (SSA) depending on the intended use of the equipment and final disposition. NAVAIR Lakehurst is designated as the Software Support Activity (SSA) for CASS system software as well as support equipment designated as CGSE. NAVAIR NI is designated as the SSA for CASS Self Maintenance and Test (SMAT) and Calibration (CAL) software (known as SMAT/CAL). NAWCAD Point Mugu is designated as the SSA for JSECST equipment. Various FST's under the cog of their parent PMA will be designated as the SSA for items developed by PMA-260 which are "Off-Load" type end items that are designed, produced, verified and transitioned to platform PMA's as Peculiar Support Equipment (PSE).
- The Center for Naval Aviation Technical Training (CNATT), Pensacola is responsible for maintaining configuration and status accounting as directed by PMA-205 on maintenance and operational training units of SE. The PMA-260 APM for Training Systems will provide the oversight for CM as it pertains to the training systems utilized by the SE program.

CHANGE SUMMARY PAGE

This change summary page is provided to maintain a record of changes. Upon receipt of a change or revision approved by the PMA-260, the holder of the plan shall incorporate the change(s)/revision(s) into the basic plan and make an appropriate entry on the record of changes listed below.

RECORD OF CHANGES

Revision/ Change No.	**Date**	**Page / Para.**	**Title or Brief Description**	**Entered by**

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SECTION I

INTRODUCTION

1.0 Scope - This plan pertains to the configuration items (CIs), including computer software configuration items (CSCIs), SE unique subsystems and components, SE unique ancillary equipment, Support of Support (SOS) equipment and trainers associated with the various SE programs. The modification of existing CIs commenced subsequent to approval of this plan and under the cognizance of PMA-260 will be controlled by this plan. The SE configuration management program shall define the as-designed, as-built, as-delivered, and as-modified configurations of a system/end item, as well as the identified Configuration Items (CIs) within that given system/end item.

1.1 Purpose - This Configuration Management Plan (CMP) is prepared in accordance with the guidelines provided by MIL-HDBK-61 Series, NAVAIRINST 4130.1 Series, and ISO 10007:2003, and describes the configuration management organization, responsibilities, and procedures for requesting, authorizing, and accounting for changes to allocated, functional, and product baselines for the SE end items and SE systems under PMA-260 cognizance. The intent of this plan is to provide formal configuration control and a mechanism for the Program Managers (PM) and Integrated Product Teams (IPT) to assess, authorize, and account for changes to the baselines. This plan shall be reviewed at least every two years from the date of issue. As a result of these reviews, required updates will be made and the plan will be re-submitted to AIR 1.1 for approval.

1.2 System Description – This CM Plan provides overall direction and guidance for all common support equipment under the direction of PMA-260. As such, the systems covered under this plan vary widely and include individual (stand alone) testers, test stands, rolling stock and Automatic Test Equipment (ATE) as well as associated items such as test stands, test program sets, ancillary equipment, etc that are part of, or used with, these systems.

1.3 General Policies - Configuration changes shall be held to a minimum. The approval to begin planning for and to execute any change related to items of Support Equipment under PMA-260 cognizance shall be formally processed using the procedures set forth by this plan. Only those changes that enhance operational capability, reliability, maintainability, safety, logistics support, or value engineering, or that correct identified deficiencies will be approved.

1.4 Document Overview – This CMP is a living document, and therefore additions, deletions, and modifications will be incorporated as required. Correctly used, the CMP itself will provide overall guidance and definition for the conduct of an effective configuration management program in accordance with established policies and procedures documented in the referenced standards and instructions. As well, conformance with this plan ensures compliance with the guidelines set forth by PMA-260. The additional information, included as attachments to this document, provide specific instructions for: identifying the appropriate documentation to be used; classification criteria data; format samples; and detailed instructions for completing forms used to request/record configuration changes.

1.5 Acquisition Plan (AP) Summary – It is the nature of the CSE program that sustaining, modification and acquisition activities are ongoing at all times. Many of the SE items are currently out of production but scheduled to remain operational for indefinite periods. Both planned and unplanned modifications to these items will continue to be accomplished by Engineering Change Proposals (ECPs). A number of SE end items are currently undergoing upgrade (either as simple or complex modifications or as Conversion In Lieu of Procurement (CILOP)) as a result of technology improvements or obsolescence, and yet others are under development. Acquisition Plans for qualifying items are developed and tailored to the program based on the type of development and

the accepted entry point into the acquisition process. Each acquisition is evaluated and an individual AP is created based upon the complexity of the acquisition and the entry point into the acquisition process.

1.6 Program Impacts – Under the Enterprise Resource Program, several new systems will be introduced to better support configuration program management. As well, there are PMA-260 initiatives being developed to enhance program and Fleet data management and submission.

- Configuration Management Information System (CMIS): As an Automated Information System (AIS), CMIS supports the configuration, engineering, and technical data management functions of the DoD community. CMIS transition is completed for CASS Station configurations and is ongoing for Common Ground Support Equipment (CGSE). CMIS capabilities are still being expanded and the system is planned to have future capabilities that allow communications and links to external systems such as MODMIS, KITMIS, NALCOMIS, TDSA, COMTRAK, and others providing real time updates of as-is system and end item configurations.
- SEDD 2000 (CASS Operational Management System (OMS)) was developed as part of the CASS family of ATE with the primary mission of assisting in the management of a network of CASS stations. OMS provides network supervision for a group of CASS stations; scheduling and monitoring Visual Information Display/Maintenance Action Form (VIDS/MAF) jobs; automated MAF entries directly on the CASS station; collection and archival functions of all station and Unit Under Test (UUT) data; and "Black Box" connectivity to existing Management Information Systems.
- NALCOMIS Optimized Organizational Maintenance Activity (OOMA): Functionality includes providing real time asset visibility and query capability based on serial number, part number, National Stock Number (NSN), and Work Unit Code (WUC).

1.7 Applicable Documents - CM standards and instructions applicable to Support Equipment systems are listed below. They, along with the CM requirements of the contracts identified within the acquisition plans cited in the paragraph 1.5 are the reference documents for this CMP.

DOD 5520.22-M	Industrial Security Manual for Safeguarding Classified Information, dated January 1995
EIA-STD-649	National Consensus Standard for Configuration Management, dated 01 February 1999
COMNAVFORINST 4790.2 series	Naval Aviation Maintenance Program
OPNAVINST 5510.1	Department of the Navy Information and Personnel Security Program Regulation
OPNAVINST 5513.9	Department of the Navy (DON) Security Classification Guidance for Nuclear Warfare Programs
NAVAIR 00-25-300	Technical Directive System
NAVAIRINST 4130.1 Series	Naval Air Systems Command Configuration Management Policy
NAVAIRINST 5030.5	Policy and Responsibilities for the Assignment of Nomenclature, Serial Number Prefix Letters, and Identification Marking of the Naval Air Systems Command Electronic, Aeronautical, and Aeronautical Support Equipment
MIL-STD-130	Identification Marking of U.S. Military Property
MIL-STD-490	Specification Practices
MIL-HDBK-61series	Military Handbook Configuration Management Guidance
MIL-STD-973 (Guidance only)	Military Standard for Configuration Management cancelled 30 September 2000

MIL-N-18307	Nomenclature and Identification for Aeronautical Systems Including Joint Electronics Type Designated Systems and Associated Support Systems, dated 15 September 1986
MIL-STD-498	Software Development and Documentation
MIL-STD-961	DOD Standard Practice for Defense Specifications
P3ISPR-PL-SCM-001	NAVAIR LKE CASS S/W CM Plan
ASE-SCM-001	NAVAIR NI S/W CM Plan

The following non-government documents were used or referenced in the development of this plan.

ISO 10007	Quality Management, Guidelines for Configuration Management
EIA/IS 649	National Consensus Standard for Configuration Management
ASME Y14-100M	Engineering Drawing Practices

SECTION II

ORGANIZATION AND RESPONSIBILITIES

2.0 Program Functional Organization. The PMA-260 SE IPT organization consists of offices of the procuring organization (PMA-260), Navy Field Activities, and respective Contractors. The principal offices are the Aviation SE Program Manager's Office (PMA-260) of AIR 1.0 and the Naval Air Systems Command (NAVAIRSYSCOM). The program is structured with three Level II IPTs. The Program Manager located at the NAVAIR Headquarters draws resources from the NAVAIR North Island, Naval Air Depot, Jacksonville, Florida (NADEP JAX), the Naval Surface Warfare Center, Crane Division (NSWC CD), NAVAIR Lakehurst, NJ, and the Naval Air Warfare Center Weapons Division (NAWCWD) Point Mugu, California and China Lake, California. Configuration Management functions shall be fulfilled utilizing the various IPT's and/or contractors and processed via the NAVAIR CCB process utilizing the AIR 1.1 centralized Change Control Board. Support Software Changes (SSC) will be requested using a Software Change Proposal (SCP) which is processed through the PMA-260 Software Change Control Board (SCCB). Contractors designated to develop change documentation shall only be tasked within the scope of their contracts.

2.1 Responsibilities and Authority for Configuration Management. Configuration responsibility and authority is assigned to the following.

A. AIR 1.0 (PMA-260) is the Office of Primary Responsibility (OPR) for Aviation Support Equipment and is responsible for the overall configuration of Common Support Equipment end items and systems. As the OPR, PMA-260 will exercise configuration control through the use of Integrated Product Teams and specific program identified positions (See Appendix B).

NAVAIRSYSCOM (AIR-1.1.3) maintains Configuration Control Board (CCB) authority for all hardware configuration actions. The AIR -1.1.3 CCB Secretariat, under the chair of the CCB, is responsible for logging Engineering Change Proposals (ECP) into the system, assigning the Document Tracking Numbers and CCB numbers, and maintaining records of CCB decisions and actions.

PMA-260 is further designated as the NAVAIR SE SCCB authority for approval of configuration actions pertaining to all SE CSCIs including Peculiar Support Equipment (PSE). AIR 1.1 has chartered the PMA-260 SE Software Change Review Board (SCRB) to exercise configuration control of all Support Equipment operational software. The SE SCRB membership represents cognizant functional areas within NAVAIRSYSCOM, the Support Equipment System Support Activity, Test and Evaluation (T&E) activities, user activities, associated IPT SCRBs, contractors, and others as necessary. Appendix D delineates the board's composition. The results of SE SCRB shall be forwarded to the NAVAIR CCB and AIR 6.8.5, as appropriate, for disposition.

B. Integrated Product Team Leads are responsible for the completion of all CM actions within their Team, the generation of requests for a Class I change or modification to an established configuration baseline, and conducting configuration audits.

C. The Fleet Support Teams will be responsible for maintenance of detailed configuration information, and configuration status accounting (CSA) of baselines.

1. NAVAIR North Island is responsible for H/W CI's comprising the CASS Stations associated with the Hybrid, RF, CNI and High Power configurations as well as both the Self Maintenance and Test (SMAT) and Calibration (CAL) (SMAT/CAL) OTPS's

and their operational S/W associated with the above CASS configurations. Additionally, they are responsible for Common Automatic Test Equipment (CATE).

2. NAVAIR DEPOT JAX is responsible for the CI's comprising the EO configuration of CASS.
3. NAVAIR Lakehurst, NJ is responsible for CSCIs comprising the PMA-260 unique organically supported software (excluding CASS SMAT/CAL S/W). They are also responsible for H/W CIs for all CGSE.
4. NAVAIR Cherry Point is responsible for H/W CIs and SMAT/CAL for RTCASS.

D. CM responsibility for Peculiar Support Equipment (PSE) (TPS's developed by PMA-260 and subsequently transitioned to another PMA) hardware changes to configuration items is designated to the cognizant FST and controlled by PMA-260 until transition to the platform PMA. Specific CM functions (prior to transition) may be further designated to other activities in accordance with an approved transition plan.

2.2 Organizations and Responsibilities - This section identifies the PMA-260 CM program participants, their responsibilities, their inter-relationships, and their relationships with external activities.

2.2.1 Program Manager/Deputy Program Manager - The Program Manager (PM), is responsible for Support Equipment CM and retains final authority for CM related decisions. The PM, advised by the Deputy Program Manager (DPM), plans CM events and assesses CM effectiveness. The PM or DPM or their designated representative chairs the PMA-260 SE Software Change Control Board (SESCCB). Decision authority/approval for selection of the method used to meet new requirements (new acquisition, ECP, Conversion in Lieu of Procurement) is the PMA-260 PM.

2.2.2 Assistant Program Managers (APM):

A. APM, Systems Engineering (APMSE) - The APMSE (also known as the Class Desk) is responsible for PMA-260 systems engineering support. The APMSE assists the individual IPTs with defining the engineering requirements and assists with staffing issues through the NAVAIR engineering competencies.

B. APM, Logistics (APML) - The APM/L assists the individual IPTs with determining Support Equipment logistics support and system maintenance requirements and assists with staffing issues through the NAVAIR logistics competencies. Additionally, the APML is responsible for coordinating cross-IPT logistics matters.

B1. The CM Team Lead shall ensure that PMA-260 CM activities are consistent with NAVAIR policy and overall program goals and direction. A checklist of required CM actions is provided in Appendix E. The CM Team Lead is the CM point of contact interface with AIR-1.1.3.

C. APM, Training Systems (APMTS)– The APMTS is responsible for PMA-260 operational and maintenance training system support. The APMTS assists the IPTs during ECP development and evaluates the impacts of configuration changes on trainer hardware and software, training manuals, manpower and personnel, etc.

D. Business Financial Manager (BFM) - The BFM is responsible for administering the PMA-260 budget. The BFM and IPT Lead, in coordination with the Program Manager, Program Deputy, and Assistant Program Managers identifies appropriate funds for requirements; and ensures that the funding is available for ECPs.

E. Procurement Contracting Officer (PCO) - The PCO/Field PCO is responsible for all PMA-260 assigned contractual matters related to SE configuration actions. The PCO may

designate an AIR-2.0 contract specialist or administrative contracting officer at the appropriate Defense Contract Management Command (DCMC) office to provide specific assistance to each IPT.

2.2.3 Integrated Product Team (IPT) - The IPT Lead (IPTL) is responsible for ensuring that the impact of each configuration action is completely and accurately defined within the applicable change proposal. The IPT will draw resources from the following competencies: Acquisition (1.0), Contracts (2.0), Logistics (6.0), Engineering (4.8.3), Test and Evaluation (4.8), Training Systems (PMA-205), Budget & Finance (7.6), and Legal (7.7) as appropriate.

2.2.4 Integrated Product Team Leaders - This plan defines the program requirements for CM and it is the responsibility of the IPTL to ensure the IPT executes and accomplishes the CM tasking as described. The IPTL manages development of the engineering change, its staffing, and execution. The IPTL can refer to the PMA-260 Leadership Team for assistance in staffing the team with personnel from the various competencies. The IPTL must ensure the proposed change is reflected in the budget, that all relevant areas of concern are well defined and staffed, and provide cost estimates at the outset of the project. The IPTL must coordinate changes across all IPTs and the Leadership Team prior to executing the change.

2.2.5 Field Support - PMA-260 and NAVAIRSYSCOM have established organizations at certain field activities which are responsible for the management and maintenance of Support Equipment Systems Engineering data. The PMA and IPTL must establish requirements for, and allocate resources to, these activities for the maintenance of this data.

A. Fleet Support Team, Jacksonville – Shall maintain the detailed configuration records of the CASS EO configuration including engineering drawings and specifications needed to define the baseline system.

B. NAVAIR North Island - Is designated as the FST for the remaining CASS family of systems and shall maintain the detailed configuration records for the Hybrid, RF, CNI and High Power configurations of CASS. The CASS FST has been granted Class II ECP approval authority. Only authorized changes shall be installed in accordance with approved schedules and instructions. Proper configuration records shall be maintained.

C. Center for Naval Aviation Technical Training (CNATT), Pensacola - is responsible for maintaining configuration status accounting as directed by PMA-205 on SE Maintenance and Operational Trainers.

D. Naval Air Warfare Center, Weapons Division (NAWC-WD), Pt. Mugu – as the designated FST for common gun equipment and common EW SE, is responsible for maintaining the detailed configuration records for all common gun and electronic warfare equipment.

E. Naval Air Warfare Center, Weapons Division (NAWC-WD), China Lake – is designated as the FST for Software Loading CSE and is responsible for maintaining the detailed configuration records for all common Software Loading equipment.

F. Naval Air Warfare Center, Aircraft Division (NAWCAD), Lakehurst – The various Support Equipment Program Officers (SEPOs) assigned to NAWC-AD, Lakehurst are responsible for configuration management of designated support equipment and generation/coordination of changes to equipment under their cognizance. The SEPO is assisted in engineering and configuration status accounting for peculiar support equipment by organic activities assigned engineering responsibility over designated items of support equipment. NAWC-AD Lakehurst personnel staffed to IPTs will

determine the impact of the required change and direct ECP development to document all affected equipment and its defining documentation.

2.2.6 Contractors – Prime Contractors associated with each IPT will prepare ECPs, technical directives, deviations, waivers, drawings, vendor specifications and Proposed Specification Control Documents (PSCN) in accordance with the terms and conditions of the governing contracts. Contractors must submit Configuration Management Plans for government review and/or approval or must include the requirements of this plan for those configuration tasks assigned to the vendor.

SECTION III

CONFIGURATION IDENTIFICATION

3.0 Configuration Identification – Configuration Identification incrementally establishes the baselines for each of the CI's that comprise the item/system product baseline. PMA-260 Support Equipment Configuration Identification will be tailored as required to each individual program/procurement. The selection of CI's, types of configuration documentation required for each CI, and activity responsible for the update and repository of the documentation will be identified in the Acquisition Plan.

3.1 Configuration Items. Identification of SE CI's will be unique to each acquisition effort and updated as circumstances warrant throughout the life cycle of the equipment. Generally, a CI is any hardware, software, or combination of both that satisfies a specific, or end use, function and is designated for separate configuration management. Support Equipment CI's are defined as systems, ancillary equipment, test program sets and support of support items.

3.2 Configuration Documentation. Configuration documentation is all technical documentation that identifies and defines a product's performance, functional and physical characteristics. This documentation is developed, approved and maintained through three evolutionary phases, each increasing the level of detail of the documentation. The three levels (FCD, ACD and PCD) are discussed in the following sections.

A. Functional Configuration Documentation (FCD)

The FCD is the documentation describing the system's functional, performance, interoperability and interface requirements as well as the verification procedures/steps required to demonstrate achievement of those specified requirements. The FCD includes the accepted functional baseline plus all approved changes and the Prime Item Development Specification (PIDS).

B. Allocated Configuration Documentation (ACD)

The ACD is the documentation describing a CI's functional, performance, interoperability and interface requirements/characteristics that are allocated from a system or higher level configuration item; interface requirements for interfacing configuration items; and the verification procedures/steps required to confirm the achievement of those specified requirements. The ACD includes the accepted allocated baseline plus all approved changes and the Critical Item Development Specification (CIDS).

C. Product Configuration Documentation (PCD)

The PCD is the refined version of the documentation that completely describes the functional and physical characteristics of the CI and the verifications necessary for its formal acceptance. The PCD prescribes: all necessary physical or form, fit and function characteristics of a CI; the selected functional characteristics designated for acceptance testing; and the production acceptance test requirements.

The PCD includes the accepted product baseline plus all approved changes as well as the Prime Item Product Fabrication Specification (PIPFS) and the Critical Item Product Fabrication Specification (CIPFS).

3.3 Configuration Identifiers - Configuration Items, including Computer Software Configuration Items (CSCIs), will be identified and selected following the guidance of MIL-HDBK-61 and EIA-STD-649. The Contractors/government field activities are responsible for identification of CIs and assignment of identifiers as tasked in contracts/IPT charters. The Contractors/Government field activities will describe the procedures for meeting this requirement in a CMP developed in accordance with standard CM practices and delivered to the Government under the applicable program for review and/or approval. Where a part that currently exists in the respective baseline requires modification to achieve design functionality, the existing part number will be changed using a modifying suffix dash number. The assignment of suffix dash numbers to existing parts, new wire numbers, and reference designator identifiers associated with the SE being changed shall be the responsibility of the DAPML. The assigned numbers will then be used when submitting the Request for Nomenclature (DD Form 61) as required by MIL-N-18307. IPTs/contractors shall define within the ECP the part numbers for new CIs and the dash numbers for current CIs undergoing modification prior to developing the engineering data that defines the design modification.

3.3.1 Nomenclature, Nameplates, Identification, and Marking. New and modified CIs will be identified with nomenclature, serial numbers, and approved nameplates in accordance with requirements of MIL-N-18307 and NAVAIRINST 5030.5. Requests for Nomenclatures and Serial Numbers should be forwarded for processing, review, and assignment to the Program Office as the Submitter Review Point (SRP) and NAWCAD Lakehurst Code 4.9.1 as the Department Control Point (DCP). On-line Requests for Nomenclature Assignment via the Type Designation Automated System (TDAS) has been implemented. All requests for nomenclature shall be submitted using this system. On-line Request for Nomenclature data requirements is in accordance with Data Item Description REQUEST FOR NOMENCLATURE (DD FORM 61), DI-CMAN-81254A.

3.3.2 The Assignment of Part Numbers, Reference Designators (REFDES) and Wire Numbers. In order to maintain a coherent configurations parts tree, whenever possible changes to existing OEM series drawings shall be developed and released in lieu of releasing new local drawings. For new CIs associated with a modification, the design activity shall request authorization from the PMA-260 Configuration Manager to assign drawing numbers to develop the new drawings. For existing drawing sequences in use, the Configuration Manager at the cognizant FST will assign all new required part, REFDES and wire numbers.

3.4 Software Configuration Identification. Assignment of identifiers for software that will be supported by the various PMA-260 Software Support Activities (SSA) will be assigned by the SSA in accordance with guidance provided below.

3.4.1 Numbering conventions. The following paragraphs describe the identification methods and version number conventions used for Support Equipment software related CIs.

- Every software module should be identifiable by its unique filename.
- The change history of each source code module is listed in the revision log at the beginning of the module.
- The characters following the last dash (“-”) in each software part number should represent the software version number. The formats of these version numbers vary, depending on the type of the software release(s) involved. For software releases sent to "all" Fleet sites (i.e., all Fleet sites that use that equipment), the version number is a three-character integer that is incremented each time a periodic software release is made. Use of single character version numbers (e.g., -1, -2) should be avoided since they can't be sorted correctly beyond "-9". For example, sorting software part/version numbers from -1 to -13 will normally yield -1, -10, -11, -12, -13, -2, -3, -4, etc.
- For the first Limited release made after a normal Fleet release, an "L" followed by the character “one” (“1”) is appended to the version number. For each subsequent Limited

release (until the next Fleet release is issued), the integer following the "L" is incremented. When the next Fleet release is issued, the Limited version number (“LX") is deleted.

Type	Sent to	# of software changes	Comments
“Fleet” release	All sites	(often) Multiple	Normal release
Limited release	Selected sites	Varies	Emergency release used to temporarily meet critical Fleet requirements

3.4.2 S/W release contents. The contents of a software release depends on a variety of factors including:

- Availability of individual software changes
- Requirements of the customers (e.g. the SE prime contractor, Fleet sites)
- Degree of risk that the particular software change may cause incompatibility problems

3.4.3 Limited Releases. A limited release is typically scheduled, generated, tested, and released to temporarily resolve a single, high-priority problem.

Limited releases are typically scheduled upon request by program management to meet Fleet deliveries of new or updated SE (e.g., Test Program Sets) or to resolve high priority problems that impact some, but not all configurations of SE (e.g., some but not all configurations of CASS stations).

Permanent resolution of the problems associated with Limited releases are made when the corresponding software changes are implemented into a normal (i.e., unlimited) Fleet release.

SECTION IV

CONFIGURATION CONTROL

4.0 Configuration Control – Proper configuration control requires clearly defined control authority for developing and releasing engineering documentation, hardware and software. Establishment of this control authority and defining the processes used to ensure strict configuration control are key elements of the PMA-260 CM program. NAVAIR is the CCA and has final authority and responsibility for controlling the content of SE Technical Data Packages (TDPs). Changes to any baseline for items of SE will be processed in accordance with procedures set forth in this Plan. Class I ECPs, RAMEC's and Major Deviations and Waivers, will be submitted to the NAVAIR CCB for approval. SE software changes will be submitted to the PMA-260 Software Change Control Board for approval. Class II changes shall be approved by the designated PMA-260 activity or the supporting contractor as defined in the contract. At a minimum, the government will provide concurrence in classification prior to or concurrent with the release of any Class II change. The contractor assumes total risk for implementation of Class II changes prior to notification of government concurrence.

If a contractor is not the Current Design Control Authority (CDCA) for the design data, lists, and other documents comprising the configuration identification item, Class II ECPs will be approved by the FST or IPTL having cognizance of the CI or its technical data package.

4.1 NAVAIR Change Control Board Procedures – The CM Team Lead will submit the ECP package to the CCB Review Board via ePower unless the change is a RAMEC, Waiver, or Deviation which will be hand-carried. Efforts are underway to include these changes in the ePower program, at which time, electronic submittal through ePower will be employed. The IPT Lead will be prepared to discuss the ECP and to provide any additional information requested by a board member. Board approval must be unanimous. Following CCB approval, the CCB DIRECTIVE Package will be assigned a CCB number. Technical Directive numbers will be provided by NATEC during the approval process through ePower for all hardware (including those with corresponding software changes). Individual SE software changes processed through the PMA-260 SCCB will be assigned SSC numbers by NATEC upon request from PMA-260 designated personnel until the formal board is set up in ePower.

4.2 Change Classifications and Approval Authority. - Proposed changes, deviations, and waivers shall be classified as defined in MIL-HDBK-61, EIA-STD-649 and this CMP. Proposed changes to SE software shall be classified and processed as Class I changes. When changes to established baselines are found necessary, requests for change approval will be submitted to and processed through the NAVAIR CCB in accordance with this plan. Figure 4-1 depicts the PMA-260 General ECP/TD Routing & Processing path. In Figure 4-1, the word "Contractor" includes both government and contractor activities that prepare and implement proposed changes. All changes will be forwarded to the PMA-260 CM Team Lead for review prior to the release of a Decision Memo by the PM or DPM. Upon approval of the change, the IPT will notify the cognizant engineering activity to ensure the proper updates to the configuration baseline data are incorporated.

4.3 Processing Procedures. - Processing and review of Class I changes will be accomplished using the NAVAIR SIGMA ERP ECP Approval workflow tool, ePower. All team members are mapped to the appropriate roles and trained to perform those roles. All Class I Engineering Changes will be entered into ePower by the CM Team and will be reviewed by the PMA team and dispositioned through the NAVAIR centralized CCB via ePower. The IPT shall ensure that the NAVAIR Configuration Management Division (AIR-1.1.3) receives all Class I ECPs and Requests for Major/Critical Deviations and Waivers. AIR-1.1.3 shall be included for distribution on all NAVAIRSYSCOM Contract Data Requirements Lists (CDRLs/DD Form 1423s).

4.3.1 Processing Emergency/Urgent Action Changes. - Emergency ECPs are issued when national security is at stake or to correct a hazardous situation that could result in serious or fatal injury to personnel or cause serious damage or destruction to equipment. By the criteria set forth for Emergency ECPs, PMA-260 will not process ECPs of this category. Rarely will PMA-260 process an Urgent ECP. MIL-HDBK-61 and NAVAIRINST 4130.1 Series discuss approval procedures in detail. Hand carry procedures as delineated in NAVAIRINST 4130.1 Series will be used in those special cases where an emergency or urgent engineering change proposal or request for a major/critical deviation or waiver requires CCB immediate approval. All changes approved by the hand carry process will be published in the CCB minutes. Every effort will be made to minimize this procedure to only appropriate changes.

4.3.2 Class I Engineering Change Proposal Processing: Class I ECPs will normally be prepared and submitted only upon request of PMA-260. The respective FST, IPT or contractor will prepare class I ECPs in accordance with the contract or under the guidance of MIL-HDBK-61, EIA-STD-649 and this CM Plan Appendix H provides guidance. Class I ECPs will be processed in accordance with the AIR-1.0 approved process in affect at the time of ECP submittal.

The Two-Step process allows Program Managers to obligate funding for specific non-recurring (NR) services and/or deliverables prior to the actual receipt and approval of a formal Class I ECP. The existing process requires that a complete, formal ECP be submitted and approved prior to the release and obligation of any funding. This process will yield benefits to both government and industry by permitting shorter cycle times through earlier contractual commitment. Early non-recurring activity will also lead to a higher quality formal ECP, resulting in fewer changes and quicker processing. ECP metrics will continue to be collected and monitored in the same manner that they are today using the Modification Management Information System.

After approval by the NAVAIR CCB, the PCO, via contract or contract modification, must authorize Class I ECPs submitted under contract. No Class I engineering changes shall be implemented until authorized in writing by the PCO. Notification of approval, including TD numbers and implementation information for government activity submitted ECPs, will be prepared by the Configuration Manager and released by PMA-260.

4.3.2.1 Class II Engineering Change Proposal Processing: - Class II ECPs shall be submitted in accordance with the corresponding contract. Contractor format for Class II engineering changes is acceptable. Each Class II change affecting original drawings or data files for which the Government is the Current Document Change Authority (CDCA) and where compliance with the specific detailed design is a requirement of the contract, shall be forwarded to the appropriate IPT/FST, or local Defense Contract Management Command (DCMC), prior to implementation of the change. Review and concurrence in classification by the IPT/DCMC signifies that the proposed change does not impact any of the Class I ECP criteria.

> NOTE: Class II concurrence authority has been delegated to DCMC/contractors in many cases as the result of single process initiative (SPI) proposals. However, Class II approval authority can only be delegated to Contractors for documents for which they are CDCA.

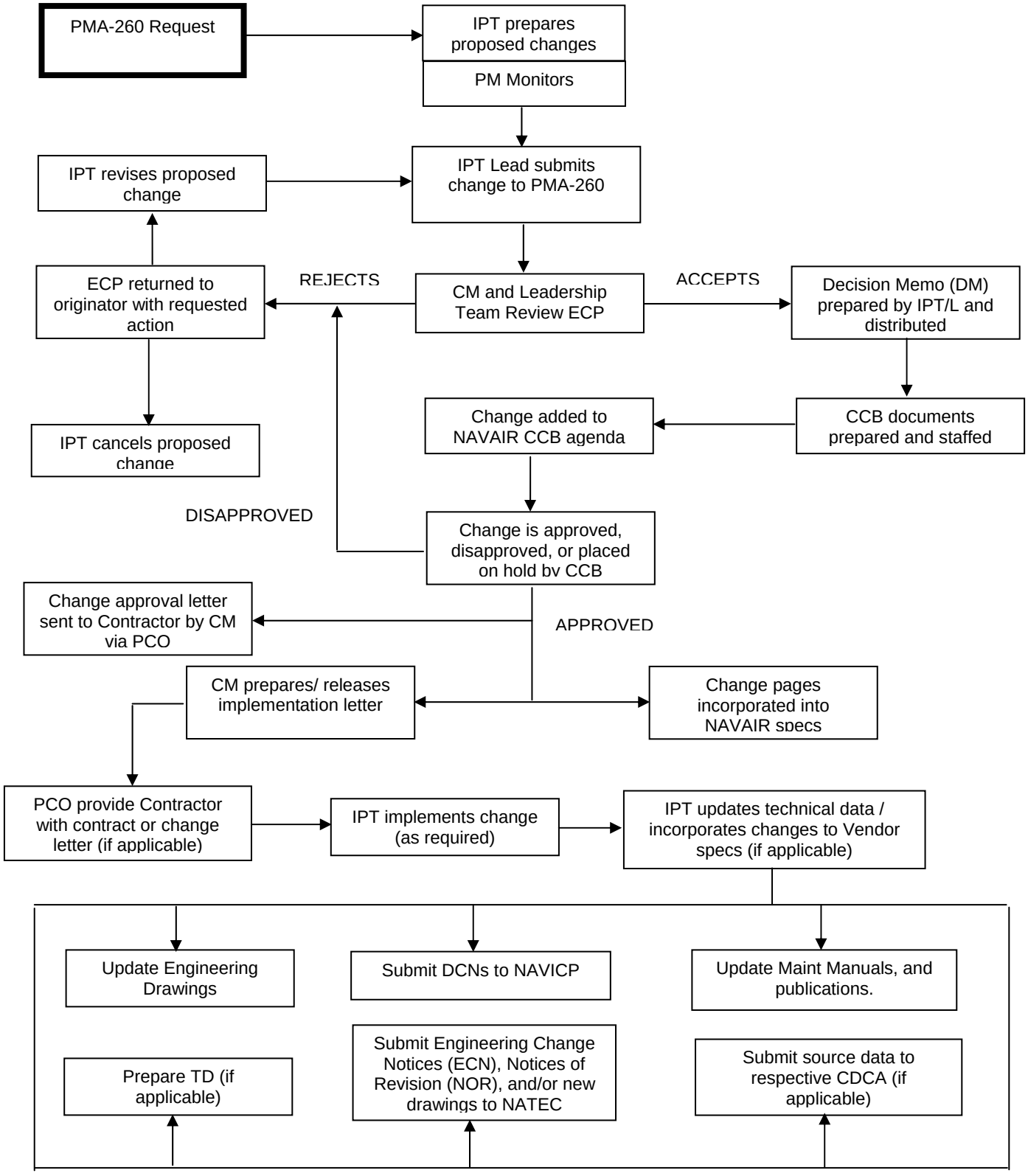


Figure 4-1 - PMA-260 General ECP/TD Routing & Processing Procedures

4.3.3 Requests for Major Deviations and Waivers. Contractor or government agencies shall prepare major Requests for Deviation (RFD) and Requests for Waiver (RFW) in accordance with either the contract or MIL-STD 973. They shall be submitted and processed as a Class I change.

NOTE: MIL-HDBK-61A dated 30 September 1997 has removed the requirement for submission of Waivers. Specifically it says "A Deviation requested during or after manufacture was formerly called a Waiver. However, the processing rules for a Request for Waiver (RFW) are identical to those for a Request for Deviation (RFD), and the terms Deviation and Waiver were often confused. The DoD will no longer maintain the redundant processing, forms or data fields, and instructions."

Information on Waivers under this section is included for existing contracts that include the requirement for Waiver submission. Future contracts will not contain this requirement.

Major or critical RFDs and RFWs shall be processed the same as Class I ECPs. RFDs and RFWs will not require cost and funding summaries. No major or critical RFD or RFW for equipment procured under contract shall be effective until authorized in writing by the PCO. Authorization must be accompanied by specific limits of effectivity (CI/CSCI and length of time or quantity). See Appendix C for classification criteria and development instructions.

4.3.4 Specification Change Notices. Specification Change Notices (SCN) shall be submitted with an ECP for each specification that would require revision to an approved baseline. The SCN is reviewed and approved concurrent with the ECP submittal.

4.3.5 Notices of Revision. A Notice of Revision (NOR) is used to define revisions to drawings, associated lists, or other referenced documents resulting from an ECP approval. All NORs shall be generated in a manner that reflects a specific "FROM", "TO" change identification. NORs shall be prepared on DD Form 1695 as outlined in MIL-HDBK-61 and shall be submitted following the commencement of non-recurring engineering after the approval of an applicable ECP.

4.3.6 Rapid Action Minor Engineering Change (RAMEC) - The RAMEC program was established by NAVAIR to provide for expeditious action on minor changes to aircraft, engines, components, support equipment, and life support systems that can be accomplished utilizing existing Fleet material stock and labor skills. Governing instructions for criteria and development are found in NAVAIR 00-25-300, Section III and Appendix D. RAMECs may be initiated by Fleet activities, Naval Air Depots, or FST. All RAMECs are processed as Class I ECPs and require an accompanying CCB package when submitting to the AIR 1.1 CCB.

4.3.7 Implementation of Retrofit Changes. Approved changes that require retrofit in delivered SE end items and systems will be released with a TD in accordance with NAVAIR 00-25-300. Compliance with TDs will be reported in accordance with COMNAVAIRFORINST 4790.2 series for entry into the Technical Directive Status Accounting System (TDSA).

SECTION V

CONFIGURATION DATA MANAGEMENT

5.0 General. This section sets forth the requirements for maintaining data which documents the configuration baseline for SE end items and systems. The Computer-aided Acquisition and Logistics Support (CALS) requirement shall be applied to all new data generation, modification, storage and management related to SE programs. PMA-260 has converted its CSA CDM functions to CMIS support. The CMIS server at NAVAIR will serve as the repository for SE systems and end items as they migrate to CMIS support. PMA-260 supporting activities will be required to identify a system administrator at each site who will ensure appropriate personnel are cleared for, and granted access to, the system data.

5.1 SE Program Master Data Custodians. Every component, end item or system of Support Equipment makes up a part of its overall configuration. Each document that identifies or describes each of those components makes up a part of the configuration baseline. Therefore, an established procedure of creating, maintaining and distributing this information is set forth herein.

5.2 SE Program Master Data Responsibilities. - Each activity will ensure that a repository of master technical data is maintained for the specific areas of assigned responsibility. The activity will be empowered via a Level II IPT Charter approved by PMA-260 to pursue methods to control changes to their respective CI data developed during the design phase of any related ECP, and maintain visibility of these changes throughout the Technical Directive development process. Its performance will be tracked via data development process metrics. The responsibilities of these activities related to data handling, processing, storage integrity, transfer, security, and maintenance of configuration management technical data are as follows: (Figure 5-1 depicts the process flow)

A. Identify a point of contact, preferably the site CM manager, whose responsibility it is to comply with the applicable sections of this plan for the data under his/her cognizance.
B. Identify a budgeting process for the maintenance of this data. In addition, the site CM manager will assist the IPTs by providing budgeting data with respect to the CM actions required by a specific ECP or other data change requirements.
C. Implement and apply a structured approach to technical and physical management of the configuration baseline documentation. Prepare and submit to PMA-260 for approval, a site-specific Configuration Management Plan that supports the processes defined in this plan. Each activity's CM plan will become an attachment to this plan.
D. Include review of baseline documentation maintenance requirements associated with all changes to the configuration baseline, as described in this plan. Review results shall be provided to the PM for consideration during any of the configuration change processes.
E. Implement and apply the configuration identification process established in Section III of this plan.
F. Establish and maintain security access and control of the documents and technical data.
G. Maintain files of documentation review comments and distribute to the documentation originators, as directed by program management.
H. Provide change control in accordance with Section IV of this plan.
I. Receive/obtain documents and technical data delivered under CDRL or other tasking.
J. Provide distribution copies of the documents and technical data for IPT personnel and for other distribution as established for specific projects. Funding for such requests when required will be provided by the IPT requesting the data.
K. Prepare and distribute data status and inventory reports.

L. Master Data Custodians shall be responsible for ensuring all changes related to technical data under their stewardship are promptly uploaded into the Joint Engineering Data Management and Information Control System (JEDMICS).

M. The IPT shall include in any transition plan, specific actions to ensure the forwarding of technical data packages to the receiving platform Program Office for inclusion in the master data inventory and upload to JEDMICS.

5.3 Master Configuration Baseline Data Access, Update and Distribution. - Access to master configuration data will generally be denied to anyone except those government and contractor activities directly responsible for its generation, maintenance and storage. Distribution will be accomplished according to the distribution statement contained on the data, or in statement absence, using the local processes established at the activity maintaining physical custody (hereafter referred to as the "custodial activity".)

A. In any case where the custodial activity is required to distribute master data to another activity or contract vendor, a copy will be made for that distribution. Prior to release, the copy shall be verified to be of a quality that is sufficient for use by the recipient. The copy shall be appropriately marked to indicate the length of time the information contained within the document is to be considered valid.

B. Master data may be delivered outside the custodial activity only when that action is performed within the framework of a CDRL, other contract vehicle, or written approval of PMA-260. (e.g. a vendor providing direct drawing changes (Redlines) during the course of modification development in lieu of an extensive Notice of Revision (NOR)/Engineering Changes (EC).)

C. In the case of supplying technical data to manufacturing activities contracted by the Government to produce SE CIs, the custodial activities will provide data only as directed by the PMA-260 Program Manager, IPT Leader or the APML in support of the identified commodity.

D. The custodial activities shall maintain access logs and procedures for ready access to data files and maintain and use marking procedures for annotation of master and working copies of the documents and technical data. Additionally, procedures will be maintained for accounting for and tracking required changes and re-identification of updated documents and technical data.

E. Upon completion of a design effort, data developed under the contract is to be delivered to the Government as set forth by the CDRL, or other contract vehicle. The data delivered shall include the following information:

- Release history for Change Orders (COs)/NORs/ECs, Design/Manufacturing Changes and new drawings generated under the contract
- Copies of any COs/NORs/ECs, Design/Manufacturing Changes that were not previously delivered to the government
- All government controlled drawings provided to the contractor for update (redline) action, which were not previously returned
- All new drawings prepared under the contract
- All new and/or revised associated data prepared under this contract and not previously delivered.

5.3.1 Distribution and Access to Other Program Technical Data. – Access to SE program technical data is limited in accordance with National Security Policies, OPNAV 5510.1, the applicable distribution statements, and also by copyright and other data rights. Distribution of

data items shall be in accordance with CDRL distribution requirements or as otherwise directed by the contract. Distribution lists for program technical data will be maintained as part of the data status reporting function. Requests for program technical data by activities outside of the SE program require approval by the Program Manager or designee.

5.3.2 Notices of Revision (NOR). - The custodial activity may be required to update master configuration data as a result of a NOR submittal. The formal NOR shall be submitted following the commencement of non-recurring engineering after the approval of an applicable ECP. Each IPT and custodial activity shall ensure provisions are made for this cost prior to approval of any baseline change. Upon receipt of a NOR, the custodial activity shall respond within the timeline required by the NOR. In the case of another organic activity, this response timeline will be established via coordination with the IPT. In the case of the contracted vendor, the response timeline will be established via contract. Therefore it is imperative that each affected custodial activity closely reviews all actions that have a potential of changing the configuration baseline documentation. Appendix F provides detailed instructions for NOR completion.

5.3.3 Release of Master Data for Repository Distribution. - As master data is generated or modified, various activities are required to update existing data files (e.g. NATEC (JEDMICS), Depots, modification activities, Fleet operators, etc.). Each custodial activity shall provide a copy of updated drawing data to NATEC (JEDMICS) and Design Change Notices (DCN) to NAVICP, as a minimum. This update will be accomplished in accordance with local directives and procedures. If specifically required by Program Office/IPT direction or contract, additional copies may be provided to a limited number of other users. These users will typically be manufacturing/ modification activities or vendors.

5.4 Processing and Submittal of Contract Data. The PM/IPTL shall ensure that applicable CDRLs call out the appropriate custodial activities for the receipt of a copy or the original technical data, as appropriate. Data items submitted for acceptance to the custodial activities require acknowledgment of receipt. Contracts typically specify a time period for document review and reply from initial delivery of the data item to the government. The review and submission of comments and recommendations by the reviewer must be completed within this time period. The due date for submission of review comments will be indicated on a cover memo or routing sheet. The IPTL or the "Requiring Office" (Block 6, of the CDRL) shall be notified by the custodial activity of receipt of submitted data for review and provided with a recommendation for acceptance/rejection.

5.4.1 Contractor Data Status Reporting. Data requirements as defined in the CDRL or other tasking documents will be maintained in PMA-260 records that will be used for tracking status of development, delivery, review and approval of the documents and technical data. These records will incorporate information of each contractually required data item including submission date, CDRL data item number, title of the data item, and source references such as Data Item Description (DID) numbers.

5.5 Data Security and Classification Management. Security and classification of documents and technical data will be handled in accordance with the classification guidance of OPNAVINST S5513.8A-7, OPNAVINST S5513.9B-12, OPNAVINST 5513.2B-63, and OPNAVINST C5513.2B-20. Classification and security activities will be performed in accordance with DOD 5520.22-M and Industrial Security Manual for Safeguarding Classified Information and OPNAVINST 5510.1H.

5.6. Software Repository Plan – The software OPR will develop a warehousing strategy for the central storage of mission critical software backups including source, development files, libraries, tools, and documentation to prevent loss in the event of a local catastrophe.

5.6.1 Data to be Archived - All SE, source, library, and development files, embedded programmable device source and data for all SE specific Weapons Replaceable Assemblies (WRAs),

and software development documentation maintained electronically, shall be archived at the designated Software Repository on native electronic media. Source data for both CSE and PSE software programs will be delivered and archived by PMA-260.

5.6.2 Archive Requirements - Data Archival CIs shall be provided in native format (i.e. electronic, optical, magnetic, or paper) for physical storage upon release for development or operational testing, fleet use, or contractual delivery of such data to the Government. The designated Software Repository shall provide acknowledgment of receipt of CIs to submitting agency.

5.6.3 Data Item Marking and Identification - Media provided for archive shall be marked with the following information:

- Security Classification (IAW OPNAVINST 5510.1)
- Downgrade Information
- Distribution Statement
- Effective System
- Program ID / Version
- Data Type (e.g. Operational Software, Firmware, Library)
- Development Information (e.g. ATLAS V3.0)
- Release Agency
- Release Date
- Media information (density, format, size)

5.6.4 Data Release – Original, archived CSCIs shall be released only upon written direction from PMA-260, the Deputy PMA, or the IPTL. Unless otherwise directed, requiring agencies shall return the original data to the Software Repository as soon as possible after use. Copies of archived CSCIs shall be provided upon written direction from PMA-260, from the Software Repository when available, or from the original developing agency.

5.6.5 Data Deletion - SE Software Repositories shall, at least once a year, provide an inventory of archived items. PMA-260, not less than yearly, shall review the inventory of CSCIs and provide disposition of the items to the Software Repository. All items submitted for archive shall be retained until disposition is directed by PMA-260. For example, CSCIs related to systems no longer used by the Fleet will be identified and disposed of in accordance with national security policy.

5.6.6 Data Inventory - The data inventory shall provide, at minimum, the following information:

- Security Classification (OPNAVINST 5510.1)
- Downgrade Information
- Distribution Statement
- Effective System
- Program ID / Version
- Data Type
- Development Information
- Release Agency
- Release Date
- Original and number of copies held
- Media type
- Media information
- Size: Number of Pages/Number of tapes, CD-ROMs, etc.

5.6.7 Data Security - The Software Repository shall provide data security commensurate with the classification of the material being stored and in accordance with OPNAVINST 5510.1, other DoD, Navy, and site security requirements and regulations. Only personnel with appropriate security clearance and need to know shall be granted access to the data. Data shall be received, stored, controlled, and distributed only in accordance with applicable security requirements. Because both unclassified/sensitive and classified materials may be stored, the Software Repository shall provide segregated storage as required.

Engineering Data Development Responsibilities

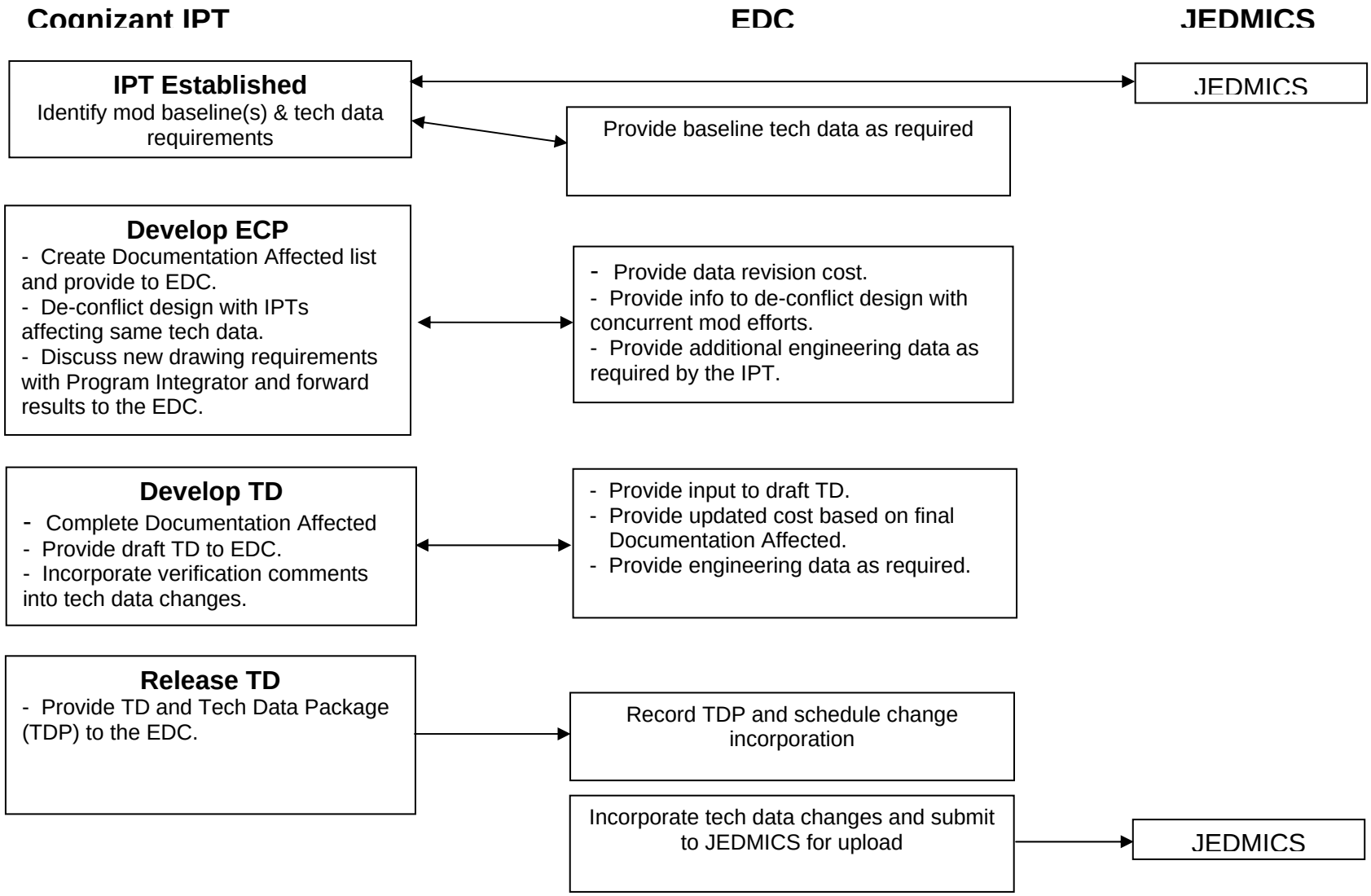


Figure 5-1

SECTION VI

CONFIGURATION STATUS ACCOUNTING

6.0 Configuration Status Accounting (CSA) – CSA is the process of creating and organizing the knowledge base necessary for the performance of configuration management. In addition to facilitating CM, the purpose of CSA is to provide a highly reliable source of configuration information to support all SE program activities including systems engineering, program management, manufacturing, software development and maintenance, logistics support modification management and maintenance. When a change to a configuration baseline is required, a proposed change document is submitted to the PMA-260 CM Team Lead. Upon receipt, the CM Team Lead coordinates with the AIR 1.1 CCB Secretariat to record receipt by entering selected information into the Modification Management Information System (MODMIS). Within NAVAIR, AIR-1.1.3 monitors the status of processing progress through CCB approval and initial NAVAIR implementing actions. Within 30 days, the CM Team Lead will advise AIR-1.1.3 whether the ECP has been accepted or rejected for processing. If accepted, a projected CCB target date will be provided to AIR-1.1.3 in the Decision Memorandum (DM) and the corresponding item/items will be flagged in the CSA database as pending change and the ECP/SEC numbers recorded.

6.1 Configuration Status Accounting System (CSAS) – The PMA-260 CM Team Lead is responsible for configuration status accounting for the SE end items/systems. In order to facilitate and coordinate this effort, the use of electronic databases are employed.

A. At the present time the Configuration Status Accounting System for CASS is the Configuration Management System (CMS) at the CASS FST in North Island. The CMS system will be used for the CASS systems until completion of data transfer and stand-up of CMIS functionality (currently scheduled for the end of 2006). Parallel operations of CMS and CMIS is currently being employed with the elimination of CMS planned for Dec 2006 when FAM approval expires. CMS is configured to receive data from designated personnel at FST NI via network capabilities resident as part of CMS. Access to the CMS database is provided to users on a limited basis and must be accessed through the NMCI firewall. FAM approval for CMS has been granted and is currently approved through Dec 2006.
B. The APMSE monitors the processing progress of SE baseline configuration changes within AIR-4.0, and implementing actions required to ensure implementation in a timely manner.
C. The CM Team Lead monitors the processing progress of SE baseline configuration changes within the IPT's as well as additional implementing actions required to ensure production cut-in and retrofit of approved changes are accomplished in a timely manner.

6.1.1 Configuration Management Information System (CMIS) - The PMA-260 CASS program is scheduled to transition from CMS to the Configuration Management Information Systems (CMIS). CMIS is an automated CM tool provided to components of the Department of Defense (DoD). The system adheres to a set of functional CM business practices, is user friendly, and is built using an open-systems architecture. It uses the Oracle relational database management system (RDBMS) that organizes data into tables and columns for rapid query and retrieval. CMIS is designed to support the configuration, engineering, and technical data management functions of the DoD community with a standard Automated Information System (AIS). The PMA-260 Program Office is responsible for providing CMIS developers with the front-end source data in order for CMIS to become operational for SE systems.

6.2 Technical Directive Status Accounting System (TDSA) - The TDSA is used to record authorized technical directives and to report and record incorporation of engineering changes authorized by such technical directives for items of SE. The Configuration Manager can retrieve TDSA information on demand from the Naval Aviation Logistics Data Analysis (NALDA) System. Additional information can be obtained from periodic TDSA reports and are made available upon request.

6.3 CSA Significant Items – CSA significant items are, in general, all configuration items and their components. This includes all hardware and software items required for logistics/engineering support and/or designated for separate procurement. Hardware configuration items identified as CSA significant for SE systems/end items are all the serial numbered CI's for which the serial numbers are recorded in an automated CSA database. CSA significant items include ancillary items, support equipment, station/system assets and any items deemed as maintenance significant items regardless of repair capability.

6.4 Post Production Hardware Configurations – CSA configuration updates on fielded units are associated with the post-production events described below.

A. **As-Delivered Hardware Configuration.** This configuration (also called As-Built) consists of the PBL, plus all approved changes (including waivers and deviations) to the PBL, and serial numbers of the end item and all its components.
B. **As-Installed Hardware Configuration.** This configuration consists of the As-Delivered configuration plus all its approved changes made during installation. It includes any ECP's incorporated and documentation of removal and replacement of faulty components identified during installation tests.
C. **As-Maintained Hardware Configuration.** This configuration (also called As-Is or As-Operated) consists of the As-Installed configuration plus all changes made to the item after installation. This configuration changes dynamically when there is a change to a part number CAGE code or serial number. The As-Maintained configuration also changes when there is a change in the CAGE code or part number of any next-lower indenture of a serial numbered component.

6.5 CSA Data Collection and Management – Events throughout the life cycle of equipment necessitate updates to the CSA data documenting the item. CSA data is established when the system is received and accepted by the government and is updated continuously until retired from government service. Data tracking from change inception to incorporation is required for all items affected by a change event. Each item affected by a change must be identified and flagged as needing the change and tracked until all retrofit actions are accomplished.

6.5.1 DD Form 250 Data – The initial capture of CSA data for any PMA-260 system/end item is from the Material Inspection and Receiving Report (DD Form 250). This document identifies, by Contract Line Item Number (CLIN), the part numbers and serial numbers of assets delivered to the government. The DD250 also identifies, by reference, the PBL of delivered products. All exceptions to the PBL are identified in attachments to the DD250. Conversion to electronic acceptance is currently underway. All data elements previously contained in the DD250 are reported in electronic format from the supplier. DD250 format delivered data contains the following:

A. **Attachment A** of the DD250 lists approved deviations and waivers. CSA is concerned with deviations and waivers as these are the first changes to the PBL.
B. **Attachment B** of the DD250 delineates hardware shortages and/or required change notice incorporations.

C. **Attachment C** of the DD250 lists any deviations or waivers which were incorporated at the time of DD250 acceptance but before formal government approval of the deviations and/or waivers.
D. **Attachment D** of the DD250 identifies all Production Acceptance Test (PAT) or First Article Test (FAT) open action items.

6.5.2 Installation Data – Upon delivery of a complex SE system (i.e. CASS station), an installation team will assemble, connect, and test the system. All configuration changes made by the installation team are documented in an Installation Trip Report (ITR). The CSA pertinent installation information is obtained from the ITR and from direct contact with the Installation Team Leader. The installation team, in the ITR, records configuration changes made, if any, during the installation process. All ITR's are sent to and retained by the Installation Team Leader. ITR copies are distributed to PMA-260 and the appropriate FST.

6.5.3 Hardware Change Requirements (ECP/NOR) Data – Approved ECPs have an impact on the As-Designed (Product) baseline and, upon approval, the CSA data must be updated to reflect the change. The necessary information is obtained directly from the ECP and its attachments and enclosures. The ECP and its associated change documentation (NORs, DCNs, TMs, LSAR data, etc) are entered into the CSA database as configuration changes against specific hardware Configuration Items and supporting documents.

6.5.4 Retrofit/Rework Data – Upon incorporation of an Engineering Change by TD, the change information will be input to the CSA database and the TDSA system will be updated. The completion of retrofit or rework action by non-fleet activities is documented on a Certification of Completion (COC) in accordance with Data Item Description (DID) 80224A. The CoC lists the type of rework/retrofit incorporated, serial number/part number of the affected equipment, and change notice number. PMA-260 activities will use the CoC to update TDSA and record the change information in the CSA database.

SECTION VII

INTERFACE MANAGEMENT

7.0 Interface Control: - Another aspect of configuration identification to be considered during development is interface management, also referred to as interface control. IPT Leaders responsible for new systems may have interfaces with other systems or interface requirements with platform activity/activities when developing SE to support a platform system. Those interfaces constitute design constraints imposed on the programs. As the system is defined, other interfaces between system components become apparent. All of the interfaces between co-functioning items need to be identified and documented so that their integrity may be maintained through a disciplined configuration control process. In some cases a formal interface management process must be employed in order to define and document the interface.

7.1 Program Integrator Interface Management: - Interface management and control activities among the IPTs, Prime Contractor, various subcontractors, and the Government will be conducted under the guidance of MIL-HDBK-61 and EIA-STD-649, this CMP, IPT charters, and/or applicable contracts. Management will be exercised through various coordination meetings, working groups, and conference calls which will ensure the accomplishment of planning, scheduling, and execution of interface activities; resolution of interface problems that cannot be resolved through engineer to engineer interaction; and coordination of proposed changes that impact the interface.

7.1.1 ECP Staffing & Prioritization Meeting: - This meeting, which will be chaired by the PMA-260 Configuration Management team lead, will resolve ECP staffing and technical issues. In process ECPs will also be prioritized as necessary.

7.1.2 Cross-IPT Conference Call (Control Room Meetings): - This conference call will focus on technical issues that span across all IPTs. The call will be chaired by the APMSE who is empowered to resolve technical issues between IPTs when mutual agreement cannot be reached.

7.1.3 PMR/Program Reviews: - These reviews, which will be held periodically, are designed to provide all IPT personnel with an overview of issues affecting the configuration of the commodities/systems supported by PMA-260. During these reviews, each IPT will brief their respective programs with the focus being placed on the programmatic, logistic and engineering issues. Attendance by the IPT Lead/PM, APML, APMSE and representatives from each IPT is required.

7.1.4 PMA-260 Configuration Management Overview: - The Configuration Manager will maintain a master integration overview of all applicable ongoing configuration management efforts within PMA-260. Inputs from commodity managers will be combined and entered into a spreadsheet format. Updates to this document will be made on monthly basis or as-needed and made available to program personnel when required.

7.2 IPT Interface Management: - During development, part of the design effort is to identify, define, control, and integrate all lower-level (i.e. detailed design) interfaces. Interfaces include external interfaces with other systems, internal interfaces between CIs that comprise the system, and internal interfaces between CIs and other components of the system (e.g. personnel, non-developmental items (NDI), facilities, support equipment); as well as the interfaces between acquiring activities and supplying activities.

During the NRE phase of an ECP, the IPT will be required to brief its proposed design to the PM during a scheduled design review. The IPT will be prepared to specifically address the resolution of any cross-IPT issues affecting the integration of all proposed modifications to the SE system under change.

7.2.1 Working Groups. - Some interfaces are completely managed within the design process. Others require specific types of formal interface management activity. The following formal working groups will be used, as needed, during SE upgrades/developments:

- Interface Control Working Group
- Test Plan Working Group
- Systems Advisory Panel
- Software Working Group
- Computer Resources Working Group
- System Security Working Group

7.2.2 Working Group Structure/Responsibilities. - Requirements for working groups will be specified in contracts and IPT charters. Additional working groups may be formed by the PM to coordinate, define, and publish interface requirements associated with the individual program. Each working group will function in accordance with procedures prepared by the IPT and approved by the respective IPT/L. Working group actions, proposed changes, technical coordination, disputes, or problems will be recorded through use of locally developed System Problem Reports (SPR) or Problem Identification Reports (PIR) forms and will be monitored by the individual IPT Leads. A control number as assigned by the submitting activity will identify each SPR/PIR. Interface conflicts that cannot be resolved within the working group will be presented to the PM for resolution.

7.3 Interface Control Documents: An Interface Control Document (ICD) or drawing depicts the physical, functional, and performance interface characteristics of related or co-functioning items (CIs or components). An ICD is prepared to:

- Establish and maintain compatibility between items having a common boundary.
- Coordinate and control interfaces between co-functioning systems through change control.
- Record and communicate design decisions to participating design activities.

An ICD may control one or more of the following types of interface design requirements:

- Mechanical, Electrical, Electronic, Hydraulic, Pneumatic, Optical
- Operational sequence, system switching.
- Inter-operability (with other Service or allied systems)
- Installation - Envelope, Mounting, and Interconnection
- Other characteristics that cannot be changed without affecting system interfaces.

SECTION VIII

CONFIGURATION AUDITS

8.0 Configuration Audits - The following audits are used during the design and acquisition process to verify the configuration of the various CIs and to establish the Functional and Product Baselines respectively:

- The Functional Configuration Audit (FCA) is the formal examination of the functional characteristics of a configuration item, prior to acceptance, to verify that the item has achieved the requirements specified in its functional and allocated configuration documentation. The objective of the FCA shall be to verify the configuration item and system's performance against its approved configuration documentation.

- The Physical Configuration Audit (PCA) is the formal examination of the "as-built" configuration of a configuration item against its technical documentation to establish or verify the configuration item's product baseline. The PCA includes a detailed audit of engineering drawings, specifications, and technical data, tests utilized in production of CIs, and design documentation, listings, and operation and support documents for CSCIs. The PCA shall include an audit of the released engineering documentation and quality control records to ensure the as-built configuration or as-coded configuration is reflected in this documentation.

8.1 Configuration Audits Completed - FCAs and PCAs have been conducted on Support Equipment/systems, trainers/training equipment, software programs, support of support equipment and related ancillary equipment in accordance with established guidelines for technical reviews and audits for systems, equipment, and computer programs.

8.2 Additional Configuration Audits - The Program Manager will establish requirements for additional FCAs and PCAs as required. When required under contract, these audits will be conducted as contractually specified but must include witness by representatives of the custodial activity for the affected CI. When required incident to an organically performed effort, these audits will be conducted in accordance with MIL-HDBK-61 and EIA-STD-649, and representatives of the custodial activity for the affected CI will be primary members of the FCA/PCA. The content of an FCA or PCA certification package is shown in MIL-HDBK-61, Figure 8-3.

8.2.1 Organic Hardware PCA/FCA: - Representatives of the custodial activity for the affected hardware CI will be the primary members of the PCA/FCA team. For PCA, the team will physically verify, at a minimum, that the as-built CI matches the documentation, that the documentation is of acceptable quality, and that the resulting configuration meets performance, safety, and maintainability requirements. For FCA, the team will verify the integrated system, at a minimum, that the as-built CI provides the functionality defined in the detailed performance specification. Additionally, it will verify that the as-built CI matches the documentation, that the documentation is of acceptable quality, and that the resulting configuration meets performance, safety, and maintainability requirements.

8.3 Organic Software PCA/FCA: - Like hardware, the auditing function is an integral part of Software Configuration Management. Initial physical and functional configuration audits are conducted to establish baselines and ensure the integrity of those baselines. Representatives of the custodial activity for the affected hardware CI will be the primary members of the PCA/FCA team. Additional audits are performed after the initial product baseline has been established to ensure that all changes to the baselines are in conformance with defined standards and to ensure the

integrity of the initial baselines are maintained. These audits are conducted by individuals outside of the software development team that generated the software being audited.

8.3.1 Physical Configuration Audit (PCA): - PCA of a CSCI consists of an examination of the detailed design documentation against the "as-built" configuration to ensure adequacy, completeness and accuracy of the defining technical documentation.

8.3.2 Functional Configuration Audit (FCA): - FCA of a CSCI verifies that the CI/CSC/CSCI's performance complies with the specification performance requirements by reviewing the test data accumulated during testing. All differences are investigated to ensure proper authorization and approval have been obtained and supporting documentation is identified. Corrective action is taken for non-supported differences and closeout of all actions is required before FCA completion.

8.3.3 Audits of Changes to the Product Baseline: - Changes to existing software baselines require separate/additional audits to ensure that:

- Changes to the baselines are in conformance with defined standards and specifications
- The integrity of the baselines are maintained
- SCM procedures are being followed
- The intended changes being made to the baseline are implemented

In addition, the I/T Group inspects the CMS records and tests each of the individual software changes in proposed software releases to verify that all of the expected software changes associated with the release version are actually incorporated into the release.

SECTION IX

ENGINEERING CHANGE PROPOSALS, PROCESSING AND PROCEDURES

9.0 Introduction – This section explains the procedures for processing changes to any SE configuration baseline. These procedures apply to changes to any configuration items (CIs), including CSCIs, SE unique subsystems and components, SE unique ancillary equipment, Support of Support (SOS) equipment or maintenance trainers that are common to fielded equipment. SE unique software Class I ECPs shall be processed in accordance with the PMA-260 Software Change Control Board Process document. Figures D-1 and D-2 illustrate the PMA-260 Software Change Review Board Organization and Software Change Process. Major or critical deviations and waivers, and RAMECs will be processed in the same manner as Class I ECPs. Detailed processing procedures are contained in NAVAIRINST 4130.1 Series. Appendix E (Support Equipment IPT Lead Configuration Management Checklist) will prove to be useful in processing Class I ECPs. Class 1 ECPs will be processed via the ePower/Cyberdocs website. ECP classification guidelines are provided in Appendix G. Class I ECP development procedures are addressed in Appendix H.

9.1 Request for Engineering Change Proposal (ECP) – PMA-260, NAVAIR, field activities, Contractors and operational Fleet units may identify the need for a change to the configuration baseline. When initiated from outside PMA-260, change requests will be forwarded to PMA-260 (PMA-260 CM Team Lead AIR 6.6.4.9) to be scheduled for evaluation by the APMs and the affected IPT.

9.1.1 Solicited Engineering Change Proposals – PMA-260, in consultation with the APMs, IPTLs and other cognizant parties will determine if a change to the baseline is required and/or desirable considering program operational, modification and maintenance status and funding structures. The Program Manager will designate an IPT leader, a contractor, or a government activity to prepare and submit a change proposal. A “request for ECP” letter will be prepared by the appropriate IPTL for APM/PCO signature for release to a contractor, or for IPTL signature for release to a government activity.

9.1.2 Unsolicited Engineering Change Proposals – Unsolicited ECPs are those submitted without a formal written request. Unsolicited ECPs will not normally be accepted. Unsolicited ECPs that may be accepted fall into one of the following criteria:

- Safety
- Compatibility
- Correct deficiencies
- Make a significant reduction in manufacturing, operational or logistical support costs
- Prevent slippage in an approved production schedule
- Value ECPs (VECPs) and compatibility ECPs may be submitted without a request from the PCO or PMA
- Logistics ECPs (LECP) that result in improved supportability, maintainability or reduced cost may be without request from the PCO or PMA.

9.2 Preparation, Submittal and Receipt of Engineering Change Proposals

9.2.1 Preparation – Following receipt of the request letter, the preparing activity will request a meeting with the responsible IPT to determine the work share and/or areas of responsibility for the requested ECP. The IPT coordinates affected areas and consolidates the technical proposal. The preparing activity provides updates of status to the IPT on a regular basis or when requested.

NOTE: In cases where a companion ECP is required, it is the responsibility of the PM/IPT Lead to staff and coordinate its development and submission along side the parent change. The PMA-260 CM Team Lead AIR 6.6.4.9 will provide assistance as required or requested to avoid conflicts that may arise outside the PM/IPT Lead's charter.

The preparing activity will submit the completed change proposal prior to the non-recurring engineering effort or as required by contract. The proposed change must be prepared in accordance with contract requirements or NAVAIRINST 4130.1 Series for ECPs, waivers, and deviations; and must be prepared in accordance with NAVAIR 00-25-300 for RAMECs. The following information, as applicable, must be provided:

- Description of change
- Need for change
- Configuration identification impact (a complete listing of those engineering drawings, associated lists, and other referenced documents which define the system/end item configuration and are affected by the change)
- ILS impact (to include prior liaison with NATEC to determine publications impact)
- Service Life impact
- EMI
- Training/trainer impact
- Support Equipment impact
- Spares recommendation
- Operational impact
- Weight & Balance
- WSS (Lab)
- Reliability and Maintainability
- Effectivities
- Cost data
- Schedules and Milestones
- Identification of Ozone Depleting Substances (ODS) used.
- PSCN

9.2.1.1 Integrated Product Team Interface Management. – During the initial planning stages of an ECP, the IPTL is responsible for coordinating with the APMSE to determine the impact to configuration items brought about by parallel design efforts in order to eliminate possible hardware, firmware, and software conflicts. The IPTL shall ensure the list of documentation affected is developed as soon as possible and forwarded to the applicable Program Master Data Custodian(s) (reference paragraph 5.1 of this document). Early coordination between the APMSE and IPT Leaders in addition to knowledge of contractor design information ensures the ECP will not be in conflict with other program configuration actions. Section VII of this document addresses various means by which configuration interface management may be accomplished.

9.2.2 Submittal – Contractors shall submit proposed changes in accordance with the contract or Request for Proposal (RFP). Government activities shall submit proposed changes in accordance with this CMP.

9.2.3 Receipt – Upon receipt of the proposed change, AIR- 1.1.3 will log the change into MODMIS and provide the Document Tracking Number (DTN) required for NAVAIR processing of the change.

9.3 Preliminary Review

A. Upon receipt of the ECP, the PMA-260 Configuration Management Coordinator will ensure that all cognizant codes have received copies and will establish a date for the

Change Proposal Evaluation and Planning Conference or IPT meeting. If special handling is required, the IPT will conduct liaison with AIR-1.1.3 and other cognizant codes.

B. The purpose of the preliminary review is to determine if the ECP, as received, is ready for NAVAIR processing. This review will be conducted as follows:

1. The applicable Assistant Program Managers and staffs will review the ECP relative to:

   - Technical considerations
   - Reason for/justification of change relative to technical considerations
   - Impact on other IPTs/program schedules and asset availability
   - Availability of funds
   - Effectivity
   - Priority

2. The APML will review the ECP relative to:

   - ILS impacts to each of the ten elements and their relation to the CI/CSCI(s) and coordinating ILS across the IPTs
   - Supportability of change, including impacts to Automatic Test Equipment (ATE)
   - Retrofit issues

3. The APMSE will review the ECP relative to:

   - Technical issues
   - Resolution of problem
   - Meeting stated requirements
   - Required coordination with other AIR-4.0 cognizant engineers
   - Coordinating engineering efforts across IPTs.

4. The APM Training Systems (PMA-205) will review the ECP relative to:

   - Trainer impact
   - Training impact
   - Training documentation
   - Training logistics
   - Trainer retrofit issues
   - Manpower and personnel impact

5. The ECP will also be reviewed, as required, by the following:

   - Contracts (AIR-2.2.1.2) for contractual matters
   - Program FMS Management personnel and SEPO's.
   - Meterogical and Calibration requirements by NSWC Corona

C. The IPT will review the ECP relative to:

- Technical considerations
- Justification of change relative to technical considerations
- Available funding in all fiscal years of the change
- Effectivity
- Modification schedules for the change
- Priority and impact on other modification programs

D. The APML assigned to the IPT will review the ECP relative to:
- Supportability of the change per the retrofit schedule
- Support Equipment (SE) and Test Program Set (TPS) requirements and impacts
- ILS efforts
- Retrofit issues in general
- Required coordination with LEMs

E. The Deputy APMSE assigned to the IPT will review the ECP relative to:
- Technical issues
- CM issues
- Resolution of technical problems
- Meeting stated change requirements
- Required coordination with AIR-4.0 cognizant engineers

F. The Deputy APM/Training Systems will review the ECP relative to:
- Trainer impacts
- Training impacts
- Training documentation
- Training logistics
- Manpower and personnel impacts
- Trainer retrofit issues (all of the above coordinated with the DAPM/TS and DAPM/L as required)

G. The ECP will be reviewed, as required, by the following:
- Contracts specialist assigned to the IPT for contractual matters
- Program GFE Management for GFE impact.
- Meterogical and Calibration requirements by NSWC Corona

H. An Evaluation and Planning Conference (Decision Memorandum Meeting) will be convened to complete the preliminary ECP review. The attendees will include, but not be limited to, the Configuration Manager, APML, IPTLs, IPTSE, NAVICP and others as needed to evaluate the ECP for suitability for CCB processing. At this conference, a decision will be made to process the change (GO), or to reject the ECP (NO GO). If the conference elects to reject the ECP, a letter will be drafted by the Configuration Manager to cancel the ECP or to request a revision to the ECP. The conference's decision will be made within 30 days of receipt of the ECP.

I. A GO decision will require that a Decision Memorandum be prepared by the Configuration Manager and signed by the PMA.

J. A NO GO decision will require a letter to the ECP originator explaining the reason for the decision not to process the change and will delineate any further action (revised ECP, etc.) if any. The PCO will sign the letter if a contractor prepared the ECP, and the PMA will sign the letter if the ECP was prepared by a Government activity.

K. Decision Memorandum—The Decision Memorandum will be prepared within 60 days following the Evaluation and Planning Conference. It will initiate the formal CCB review of the ECP and contains the following information:

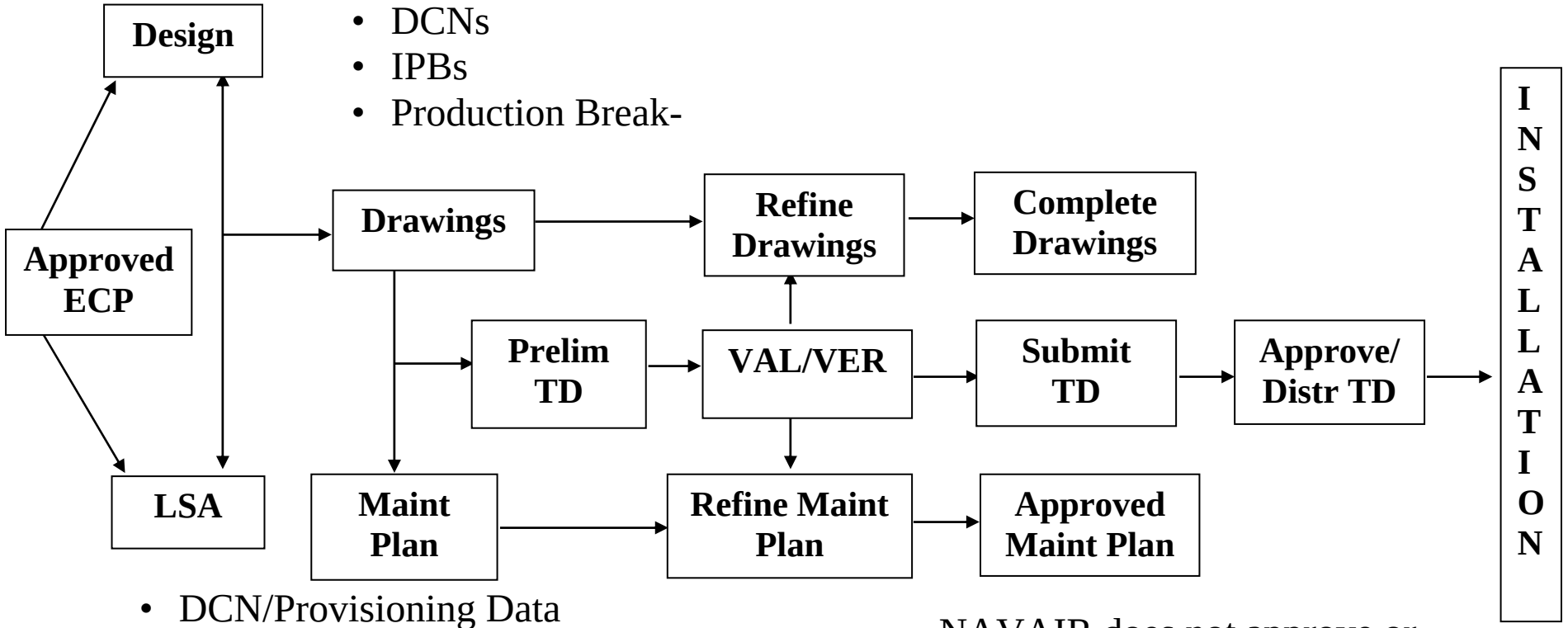
- Tasks to be completed by cognizant IPT codes including, preparation of the CCB Change Request/Directive (also known as the MAT) and associated NAVAIR forms
- Confirmed/revised contractor assigned ECP and NAVAIR priorities
- Desired production and/or retrofit effectivities

- Document Tracking Number
- Target date for completion of the formal review and a tentative NAVAIR CCB board date
- OSIP and type funding by fiscal year

1. The Decision Memorandum, signed by the PMA or Deputy PMA will be distributed to the codes indicated below as required:
   - AIR-1.1.3
   - AIR-4.1.1.1
   - AIR-3.1.1H
   - AIR-6.8.5
   - NAVICP
   - Appropriate SE system Manager
   - FST, Jacksonville, FL
   - NAVAIR Depot Jacksonville, FL
   - NATEC San Diego, CA
   - Type Commanders (TYCOMs) for O/I-level changes
   - PMA-205
   - NAWC-AD Lakehurst, NJ
   - Other codes as required to assess and approve the change

SUPPORTABILITY CONCURRENT WITH DESIGN

- Draft TD
- DCNs
- IPBs
- Production Break-



- DCN/Provisioning Data
- Interim Spares Requirements
- WUC/Maintenance Tracking
- Maintenance Pubs/Change pages
- Maintenance Training
- SE Requirements

NAVAIR does not approve or field TDs without support in place

Figure 9-1

9.4 Formal Review – Formal review of an ECP begins with the issuance of the Decision Memorandum and preparation of the CCB Change Request/Directive (NAVAIR Forms 4130/1-15 as appropriate) with its supporting documents. Sample forms and instructions for completing them are contained in NAVAIRINST 4130.1 Series. These forms will be used for processing Support Equipment ECPs, deviations, waivers and RAMECs.

A. The CM Team will prepare the CCB Change Request/Directive and make necessary inputs on the Change Request Staffing/Concurrence Form (NAVAIRFORM 4130/9 & 9A). The CCB DIRECTIVE PACKAGE summarizes information contained in an ECP in order to facilitate review by NAVAIR codes.

B. The CM Team will prepare the Milestone Chart (NAVAIRFORM 4130/3), Implementing Instructions/CCB Change Directive Implementation form (NAVAIRFORM 4130/4), CCB System Safety form (NAVAIRFORM 4130/8), make necessary inputs to Change Request Staffing/Concurrence Form (NAVAIRFORM 4130/9) and, for cost ECPs, the Cost and Funding Summary (NAVAIRFORM 4130/2):

- The Milestone Chart depicts the projected start date, completion date and duration of specific program, engineering, retrofit, and logistic support tasks.
- The Implementing Instructions form is used to identify and assign implementing responsibility to appropriate parties after change approval.
- The Cost and Funding Summary (NAVAIRFORM 4130/2) shows retrofit, GFE and logistics support costs by fiscal year, tasked activity, implementing activity and type of funding.
- The ECP Incorporation Plan (NAVAIRFORM 5215/6) contains the retrofit plan and schedule for basic equipment, trainers, and spares. The Aircraft Controlling Custodians (Type Commanders) must concur prior to presentation to the AIR-6.8.5 Logistics Review Board.

C. Other forms for GFE (NAVAIRFORM 4130/5), and SE (NAVAIRFORM 4130/7), will be completed on an as required basis.

D. In addition, the PMA-260 CM Team Lead, 6.6.4.9 will route the ECP package to logistics element managers and field activities for their inputs. AIR-4.0 will coordinate all engineering inputs with AIR-6.0, and AIR-6.0 will coordinate all logistics inputs with AIR-4.0 prior to sending the CCB package for final staffing. The IPT will report any processing delays to the DPM and recommend action to resolve the issues causing the delay.

E. The Configuration Manager will coordinate the final review within the Program Office. Required funds will be reserved by the BFM and all issues resolved prior to presenting the CCB package to the AIR-1.1.3 for signature. PMA-260 will not submit the CCB package if funds have not been reserved.

F. Type Commander (TYCOM) concurrence will be obtained for any ECP or RAMEC change.

9.5 Change Control Board Activities

A. After the PMA/DPMA signs the final block on the CCB package, the package will be scanned into the ePower web site and forwarded to the CCB board beginning with 6.8.5 and ending with Air 1.1.3.

B. The formal CCB is concerned with the technical merits of the change and if there are contractual vehicles that will permit the change to be implemented in accordance with the schedules depicted on the NAVAIR forms 4130/3. The formal CCB is chaired by

AIR-1.1.3. If the package is approved, it becomes a CCB Directive vice CCB Request/Directive and becomes the formal authority to implement the ECP.

C. If the ECP is approved, the CCB secretariat will forward copies of the approved CCB Directive to all action codes. The Program Office will notify the originator of the change within 48 hours that their proposal has been approved and that implementation documentation is in preparation. The CM Team prepares the Implementation Letter that summarizes the actions, funding and Technical Directive (TD) requirements that will implement the ECP.

D. If the ECP is disapproved, the CM Team Lead will prepare a disapproval letter within 48 hours to be sent to the lead activity for the ECP. AIR-2.2.1.2 will sign the letter for contractor ECPs, and the PMA/DPMA will sign the letter for organic ECPs. Disapproved ECPs may be resubmitted if revised to correct the CCB noted deficiencies, but this should not occur unless the ECP originator has been directed to do so by NAVAIR contracts or the by the PMA. Copies of these correspondences should be forwarded to AIR-1.1.3 for MODMIS status updates.

9.6 Contracting Activities: Upon notification of CCB approval of an ECP and receipt of CCB Directive, AIR-2.0 will draft and issue a contract modification, as required. The PCO will negotiate contract modifications with each of the contractors involved.

9.7 Class II Engineering Change Proposals. – Class II ECPs shall be submitted in accordance with the corresponding contract (See Note). Contractor format for Class II engineering changes is acceptable. Each Class II change affecting original drawings or data files for which the Government is the CDCA and where compliance with a specific detailed design is a requirement of the contract, shall be forwarded to the appropriate IPT, or local DCMC office, prior to implementation of the change. The Class II approval is granted by either the IPT or DCMC with concurrence from the other. Review and concurrence in classification by the IPT/DCMC signifies that the proposed change does not impact any of the Class I ECP criteria.

NOTE: Class II concurrence authority has been delegated to Contractors in many cases as the result of single process initiative (SPI) proposals. However, Class II approval authority can only be delegated to Contractors for documents for which they are CDCA.

A. Government Change Proposal: Once the determination is made for the requirement of a Class II ECP, the IPT will coordinate with the PM and/or the IPT Lead to determine if there is a conflict with any other IPT's ECP effort.

B. Contractor Change Proposal: Contractor formats for Class II engineering changes is acceptable. Class II engineering changes requiring government approval shall be forwarded to the DCMC for action with copy to the respective IPTL for review. IPTL review of Class II changes will consist of a technical evaluation of the change and of material substitutions to support concurrence in classification recommendations. Additionally, the IPTL will coordinate with the APMSE to determine if there is a conflict with any other ongoing ECP effort

9.8 Interim Technical Directives – Interim Technical Directives (ITD) must be of an urgent nature (e.g., safety, time critical, etc.). ITDs issued by NAVAIR must be routed and concurred with by the IPT as previously discussed in the ECP processing procedures earlier in this chapter. However, NAVAIR can direct the incorporation of the ITD while the staffing process through the IPT is ongoing. These procedures will be executed in accordance with NAVAIR 00-25-300.

A. The CCB Chairman (AIR 1.1.3) will approve interim technical directives using a program prepared NAVAIRFORM 4130/1 to document the change. In addition, the CCB will coordinate the interim TD number with NATEC.

B. A formal ECP must be submitted within 180 days from the release of the interim TD to formalize the change.

9.9 Emergency Engineering Change Proposals – Emergency ECPs are issued when national security is at stake or to correct a hazardous situation that would result in serious or fatal injury to personnel or cause serious damage or destruction to equipment. MIL-HDBK-61 and NAVAIRINST 4130.1 Series discuss approval procedures in detail.

9.9.1 Hand Carry Engineering Change Proposal Procedures – Hand carry procedures as delineated in NAVAIRINST 4130.1 Series will be used in those special cases where an emergency or urgent engineering change proposal or request for a major/critical deviation or waiver requires immediate CCB approval. Every effort will be made to minimize use of this procedure and limit it to only appropriately emergent changes.

9.10 NAVAIR Two-Step ECP Process – COMNAVAIRSYSCOM memorandum 3100 Ser AIR-1.1A/AMBPR dated 25 September 2002 provides authority to implement a revised ECP process within the NAVAIR Team. The Two-Step ECP process allows Program Managers to obligate funding for specific non-recurring services and/or deliverables prior to the actual receipt and approval of a formal Class I ECP. This process, outlined below, will be incorporated into NAVAIR Instruction 4130.1 Series. (Appendix J germane)

Step I – Obligating Funding for Non-Recurring (NR) Services and Deliverables

Part 1 – The PMA/IPT must first request an advance ECP number from the ECP originator. It does not matter if the ECP originator is a defense contractor or government organization. The advance assignment of the ECP number will ensure that all contractual activities associated with the early NR related efforts; remain linked together with the formal Class I ECP that follows, for proper management oversight at the NAVAIR/DOD acquisition and comptroller levels.

Part 2 – The PMA/IPT must first develop a NR Statement of Work (SOW) which meets criteria specified by DOD Financial Management Regulation (FMR) Volume 2A. The ideal scenario is for the government and contractor to start preparing the NR SOW prior to the receipt of funding. The final NR SOW shall be limited to the following services and/or deliverables:

- Kit prototype manufacture/procurement installation.
- Installation equipment prototype manufacture/procurement.
- Testing of kit prototype and associated equipment.
- Technical support associated with the prototype kit and installation equipment.
- Formal Class I ECP and validated proposed technical directive that describe the final modification and installation including logistics support.

Although funding documents for the NR SOW tasking may be issued prior to receipt of the formal ECP, program managers must still comply with the DOD Financial Management Regulation (FMR) Volume 2A guidance that defines efforts properly financed from procurement (e.g. APN-7) appropriations. Engineering development efforts to determine what a modification will ultimately be, or to determine how to satisfy a deficiency are not considered proper activities to be charged to procurement funding, and therefore, should be properly funded from development (i.e. RDT&E, N) appropriations.

Part 3 – A draft NAVAIR CCB Directive shall be prepared and must include NAVAIR Forms 4130/1, 4130/2, 4130/3 and 4130/4. The four-page CCB directive will serve as the acquisition

requirements and authorization document for Contracts (AIR-2.0) and Comptroller (AIR-7.6) competencies. The NR services and/or deliverables identified and funded by the CCB directive must be limited to those identified in Part 2 above and must be consistent with the final NR SOW. Once the CCB Directive has been staffed and approved by the PMA/IPT and AIR-7.6, it shall be staffed to AIR-1.1.3 for a final technical assessment and assignment of a NAVAIR CCB tracking number. These procedures have been carefully designed to ensure that they do not violate existing DOD financial regulations and that all NR activities and/or deliverables are properly identified, priced, and funded.

Step II – Staffing, Approval, and Implementation of the Formal Class I Engineering Change Proposal (ECP)

Once the formal ECP has been prepared and submitted to the government PMA/IPT as a NR product deliverable under Part I, the existing NAVAIR ECP/CCB staffing/approval procedures outlined in NAVAIRINST 4130.1 Series will be followed.

Appendix A

ACRONYMS

ABL	Allocated Baseline
ACI	Allocated Configuration Item
ACD	Allocated Configuration Documentation
ACO	Administrative Contracting Officer
ACSN	Advance Change Study Notice
BFM	Business Financial Manager
APML	Assistant Program Manager, Logistics
APMSE	Assistant Program Manager, Systems Engineering
APMTS	Assistant Program Manager, Training Systems
ATE	Automatic Test Equipment
BDE	Basic Design Engineering
CAD	Computer Aided Design
CAGE	Commercial and Government Entity
CALS	Computer-aided Acquisition and Logistics Support
CCA	Change Control Authority
CCB	Configuration Control Board
CDCA	Current Document Change Authority
CFA	Cognizant Field Activity
CGSE	Common Ground Support Equipment
CI	Configuration Item
CITIS	Contractor Integrated Technical Information System
CM	Configuration Management
CMIS	Configuration Management Information System
CMP	Configuration Management Plan
CNATT	Center for Naval Aviation Technical Training
COMNAVAIRFOR	Commander Naval Air Force
CSA	Configuration Status Accounting
CSCI	Computer Software Configuration Item
DCMC	Defense Contract Management Command
DCN	Design Change Notice
DM	Decision Memorandum
DOD	Department of Defense
DRB	Discrepancy Review Board
EC	Engineering Change
ECN	Engineering Change Notice
ECP	Engineering Change Proposal
EMI	Electro-Magnetic Interference
ERR	Engineering Release Record
FAT	First Article Test
FBL	Functional Baseline
FCA	Functional Configuration Audit
FCD	Functional Configuration Documentation
GFE	Government Furnished Equipment
ICD	Interface Control Document
ICWG	Interface Control Working Group
ICP	Inventory Control Point
ILS	Integrated Logistics Support
IOC	Initial Operating Capability
IPT	Integrated Product Team

IPTL	Integrated Product Team Leader
JEDMICS	Joint Engineering Data Management Information and Control System
JSECST	Joint Services Electronic Combat System Tester
KITMIS	Kit Management Information System
LSA	Logistics Support Analysis
MODMIS	Modification Management Information System
NAVAIRDEPOT	Naval Air Depot
NALCOMIS	Naval Air Logistics Command Management Information System
NALDA	Naval Aviation Logistics Data
NAMP	Naval Aviation Maintenance Program
NAMTG	Naval Air Maintenance Training Group
NATEC	Naval Air Technical Data and Engineering Service Command
NAVAIRSYSCOM	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NAWC	Naval Air Warfare Center
NOR	Notice of Revision
NR	Non Recurring
NRE	Non Recurring Engineering
NSWC	Naval Sea Warfare Command
NTSC	Naval Training Systems Command
OEM	Original Equipment Manufacturer
OPNAV	Chief of Naval Operations (staff)
OPR	Office of Primary Responsibility
OSD	Office of the Secretary of Defense
OSIP	Operational Safety Improvement Program
PBL	Product Baseline
PCA	Physical Configuration Audit
PCD	Product Configuration Documentation
PID	Procurement Initiation Document
PM	Program Manager
PMA	Program Manager for Acquisition
PPSL	Program Parts Selection List
QA	Quality Assurance
RAMEC	Rapid Action Minor Engineering Change
RFD	Request For Deviation
RFW	Request For Waiver
SCCB	Software Change Control Board
SCN	Specification Change Notice
SCR	Software Change Request
SCRB	Software Change Review Board
SE	Support Equipment
SEPO	Support Equipment Project Officer
SN	Serial Number
SECNAV	Secretary of the Navy
SPCC	Ships Parts Control Center
SPR	System Problem Report
SRA	Systems Replaceable Assembly
SSA	Software Support Activity
TD	Technical Directive
TDAS	Type Designation Automated System
TDP	Technical Data Package
TDSA	Technical Directive Status Accounting
TPWG	Test Plan Working Group

TYCOM	Type Commander
VDD	Version Description Document
WRA	Weapons Replaceable Assembly

Appendix B

Principal PMA-260 Configuration Management Officials

NAME	POSITION	TELEPHONE
Program Managers Office		
PMA-260	Program Manager, Aviation SE	301-757-6899
PMA-260A	Principal Deputy	301-757-6900
PMA-260D	DPM, ATS	301-757-6907
NAWCADPAX 4.8.1	APM, Systems Engineering	301-995-6408
PMA-260DA	DPM for CASS	301-757-7944
AIR 6.6.4.9	SE Director of Logistics	301-757-6836
AIR 6.6.4.9	APM for Logistics	301-757-6837
PMA-260C	DPM, A/F, Propulsion, Avionics & JPAVSE	301-757-6912
AIR 2.4.2.7	Procurement Contracting Officer	301-757-6911
AIR 7.8	Business/Finance Manager	301-757-6840
PMA-205	APM, Training Systems	301-757-8086
Level I IPT Leaders		
PMA-260C1	Armament, Acft Wiring, Vibs, Wps, Hyd SE	301-757-6867
PMA-260C11	IPTL, Armament & Decon, and Weapons CGSE	301-757-6866
PMA-260C12	IPTL, Acft Wiring & Vibration CGSE	301-757-6874
PMA-260C13	IPTL, EW, SWL, & Instrument CGSE	301-757-6845
PMA-260C2	IPTL, AF, Propulsion, Hydraulics & JPAVSE CGSE	301-757-6842
PMA-260C21	IPTL, Cryogenics, RCM, & Hydraulics CGSE	301-757-6875
PMA-260C22	IPTL, Propulsion CGSE	301-757-6844
PMA-260C23	IPTL, Platform, Electrical & NDI CGSE	301-757-6843
PMA-260D37	IPTL, CASS (Station)	301-757-6890
PMA-260D36	IPTL, CASS Electro Optics Program Manager	301-757-6893
PMA-260D2	IPTL, TPS Process Lead	301-757-6831
NAWCAD PAX 4.8.6.12	IPTL, TPS Class Desk	301-757-6830
PMA-260D1	IPTL, CASS TPS Offload Phase II	301-757-6832
PMA-260D27	IPTL, High Power Program Manager	301-757-6888
PMA-260D32	IPTL, RTCASS	301-757-6879
PMA-260D35	IPTL, RTCASS Assistant IPTL	301-757-6881
PMA-260D212	IPTL, CASS SE Acquisition Manager	301-757-6892

Appendix C

REQUEST FOR DEVIATION / REQUEST FOR WAVIER
(RFD/RFW) DEVELOPMENT INSTRUCTIONS (Utilizing DD Form 1694)

1. GENERAL

Scope

This Appendix establishes uniform requirements for-the preparation of the DD Form 1694, "Request for Deviation /Waiver."

NOTE: The information pertaining to Waivers, contained in this Appendix, is only applicable to existing contracts where Waivers are called out as CDRL Items. MIL-HDBK-61 dated 30 September, 1997 has deleted the requirement for submission of waivers. In the future, a Deviation will be the only approved document to be submitted for any and all departures from the approved configuration baseline/documentation.

Application

The provisions of this Appendix apply whenever DD Form 1694 is utilized to request a deviation or a waiver.

2. DEFINITIONS

2.1 Definitions used in this Appendix.

For purposes of this Appendix, the definitions contained in Appendix A of this plan shall apply.

3. GENERAL REQUIREMENTS

3.1 Use of DD Form 1694

The contractor shall prepare and submit DD Form 1694, or an authorized alternative, to request deviations or waivers. Local reproduction of DD Form 1694 is authorized.

Request for Deviation

The contractor shall request a deviation when, prior to manufacture, it is necessary to depart temporarily from the applicable approved configuration documentation for a specific quantity of deliverable units. Normally, for the unit(s) affected, the different configuration will be permanent. Deviations do not affect the ACD, FCD, or PCD baseline documentation.

Request for Waiver

The contractor shall request a waiver when, during or after manufacture, the contractor desires authorization to deliver nonconforming items to the Government which do not comply with the applicable technical requirements. For the unit(s) affected, the different configuration will normally be permanent. Waivers do not affect the ACD, FCD, or PCD baseline documentation.

4. DETAILED REQUIREMENTS.

Detailed instructions for completion of the DD Form 1694.

REQUEST FOR DEVIATION /WAIVER	1. DATE *(YYMMDD)*	*Form Approved OMV No. 0704-0188*
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information and Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paper work Reduction Project (0704-0188), Washington, DC 20503. **PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURRING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.**		**2. PROCURING ACTIVITY NUMBER** **3. DODAAC**
4. ORIGINATOR **a. TYPED NAME (First, Middle, Last)**	**b. ADDRESS (Street, City, Zip Code)**	**5. (X ONE)** ☐ **DEVIATION** ☐ **WAIVER** **6. (X ONE)** ☐ **MINOR** ☐ **MAJOR** ☐ **CRITICAL**

4.1 Block 1. Date
Enter the submittal date.

4.2 Block 2. Procuring Activity Number
To be used by Government for entry of internal processing number if desired.

4.3 Block 3. DODAAC
Enter the DODAAC of the procuring activity.

4.4 Block 4. Originator name and address

4.4.1 Block 4a./4b.
Enter the name and address of the contractor or Government activity submitting the request.

4.5 Block 5. Deviation or Waiver.
Enter an "X" in the appropriate box.

4.6 Block 6. Classification
The deviation or waiver shall be designated minor, major, or critical by entering an "X" in the appropriate box. When short form procedure is specified by contract, the Government will make this determination.

Critical
The Deviation or Waiver shall be designated as Critical when:
The Deviation or Waiver consists of acceptance of an item having a nonconformance with contract or configuration documentation involving safety
When the configuration documentation defining the requirements for the item classifies defects in requirements and the Deviation/Waiver consists of a departure from a requirement classified as critical.

Major
The Deviation or Waiver shall be designated as Major when:
The Deviation or Waiver consists of a departure involving: health; performance; interchangeability, reliability, survivability, maintainability, or durability of the item or its repair parts; effective use of operation; weight and/or size; or appearance (when a factor).
When the configuration documentation defining the requirements for the item classifies defects in requirements and the Deviation/Waiver consists of a departure from a requirement classified as major.

Minor
The Deviation or Waiver shall be designated as Minor when:

The Deviation or Waiver consists of a departure which does not involve any of the factors listed in 4.6.1 or 4.6.2.
When the configuration documentation defining the requirements for the item classifies defects in requirements and the Deviation/Waiver consists of a departure from a requirement classified as minor.

7. DESIGNATION FOR DEVIATION / WAIVER				8. BASELINE AFFECTED	9. OTHER SYSTEMS/CONFIGU-RATION ITEMS AFFECTED
a. MODEL/TYPE	b. CAGE CODE	c. SYS. DESIG.	d. DEV/WAIVER NO.		YES NO
10. TITLE OF DEVIATION/WAIVER					
11. CONTRACT NO. AND LINE ITEM				12. PROCURING CONTRACT OFFICER a. NAME *(First, Middle, Last)* b. CODE	c. TELEPHONE NO.

4.7 Block 7. Designation for Deviation/Waiver

4.7.1 Block 7a. Model/Type
Enter model or type designation of the CI for which this request is being submitted. For CSCIs, enter the CSCI identification number.

4.7.2 Block 7b. CAGE Code
Enter the CAGE Code for the activity originating the deviation/waiver.

4.7.3 Block 7c. System Designation
The system or top level CI designation or nomenclature assigned by the Government shall be entered, if known.

4.7.4 Block 7d. Deviation/Waiver Number
Deviation/ waiver identification numbers shall be unique for each CAGE Code identified activity. Contractors shall include the letter "D" as part of the deviation number or the letter "W" as part of the waiver number. Once a number is assigned, that number shall be retained for all subsequent submissions. Unless otherwise authorized by the Government, deviations and waivers shall be separately and consecutively numbered commencing with number one. As an alternative, numbers may be assigned from a separate series for each system that the contractor is producing. The number of characters in the deviation/waiver number, dash number, and type identification shall not exceed 15.

4.8 Block 8. Configuration Baseline Affected
Check the applicable box for the affected baseline (Functional, Allocated or Product). When short form procedure is specified by contract, the Government will make this determination.

4.9 Block 9. Other System/Configuration Items Affected
Check applicable box. If yes, provide summary data in Block 20. When short form procedure is specified by contract, the Government will make this determination.

4.10 Block 10. Title of Deviation/Waiver
Enter a brief descriptive title of the deviation or waiver.

4.11 Block 11. Contract Number and Line Item
Enter the complete contract number and line item.

4.12 Block 12. Procuring Contracting Officer

Enter the procuring contracting officer's name, code and telephone number applicable to the CI shown in Block 15.

13. CONFIGURATION ITEM NOMENCLATURE	14. CLASSIFICATION OF DEFECT		
	a. CD NO.	b. DEFECT NO.	c. DEFECT ☐ MINOR ☐ MAJOR ☐ CRITICAL

4.13 Block 13. Configuration Item Nomenclature
Enter the Government assigned name and type designation, if applicable, or authorized name and number of the CI to which the deviation or waiver will apply.

4.14 Block 14. Classification of Defect (CD)

4.14.1 Block 14a. CD Number
If either a Government or contractor's CD applies, enter the number assigned.

4.1.4.2 Block 14b. Defect Number
If a CD applies, enter the defect number(s) which correspond(s) with the characteristic(s) from which an authorized deviation or waiver is desired.

Block 14c. Defect Classification
If a CD applies, check the box that states the proper classification of the defect number(s) entered in Block 14b.

15. NAME OF LOWEST PART / ASSEMBLY AFFECTED	16. PART NO. OR TYPE DESIGNATION
17. EFFECTIVITY	18. RECURRING DEVIATION / WAIVER ☐ YES ☐ NO

4.15 Block 15. Name of Lowest Part/Assembly Affected
An appropriate descriptive name of the part(s) shall be given here without resorting to such terms as "Numerous bits and pieces".

4.16 Block 16. Part Number or Type Designation
Enter the part number(s) of the part(s) named in Block 15 or type designation/nomenclature if applicable.

4.17 Block 17. Effectivity
If lot numbers have been assigned, enter the number(s) applicable to the lot(s) for which the deviation or waiver is being requested. Lot may also be defined by serial numbers of the affected items.

4.18 Block 18. Recurring Deviation/Waiver
Show whether the same deviation or waiver has been requested and approved previously by placing an "X" in the proper box. If "Yes," reference the previous correspondence, the request number, and corrective action to be taken in Block 24. In addition, if “Yes”, provide rationale why recurrence was not prevented by previous corrective action and/or accomplished design change.

19. EFFECT ON COST / PRICE	20. EFFECT ON DELIVERY SCHEDULE
21. EFFECT ON INTEGRATED LOGISTICS SUPPORT, INTERFACE, OR SOFTWARE	

4.19 Block 19. Effect On Cost/Price
Enter the estimated reduction or price adjustment. If no change in price, cost, or fee, so state with rationale. The request for deviation or waiver shall include the specific consideration that will be provided to the Government if this "non-conforming" unit(s) (See FAR Part 46.407) is accepted by the Government.

4.20 Block 20. Effect On Delivery Schedule
State the effects on the contract delivery schedule that will result from both approval and disapproval of the request for deviation or waiver.

4.21 Block 21. Effect On Integrated Logistics Support, Interface, Or Software
If there is no effect on logistics support or the interface, enter the words, "No effect". If the deviation or waiver will have an impact on logistics support or the interface, describe such effects on an enclosure and reference the enclosure in this block. When short form procedure is specified by contract the Government will make this determination.

22. DESCRIPTION OF DEVIATION / WAIVER
23. NEED FOR DEVIATION / WAVIER

4.22 Block 22. Description of Deviation/Waiver
Describe the nature of the proposed departure from the technical requirements of the configuration documentation. The deviation or waiver shall be analyzed to determine whether it affects any of the factors listed in Block 37, 39, and 40 of DD Form 1692/2. Describe any effect on each of these factors. Marked drawings should be included when necessary to provide a better understanding of the deviation or waiver.

4.23 Block 23. Need for Deviation/Waiver
Explain why it is impossible or unreasonable to comply with the configuration documentation within the specified delivery schedule. Also explain why a deviation or waiver is proposed in lieu of a permanent design change.

24. CORRECTIVE ACTION TAKEN			
25. SUBMITTING ACTIVITY			
a. TYPED NAME *(First, Middle, Last)*	b. TITLE	c. SIGNATURE	
26. APPROVAL / DISAPPROVAL	a. RECOMMEND ☐ APPROVAL ☐ DISAPPROVAL		
b. APPROVAL ☐ APPROVED ☐ DISAPPROVED	c. GOVERNMENT ACTIVITY		
d. TYPED NAME *(First, Middle, Last)*	e. SIGNATURE	f. DATE SIGNED *(YYMMDD)*	
g. APPROVAL ☐ APPROVED ☐ DISAPPROVED	h. GOVERNMENT ACTIVITY		
i. TYPED NAME *(First, Middle, Last)*	j. SIGNATURE	k. DATE SIGNED *(YYMMDD)*	

DD Form 1694 ***Previous editions are obsolete.***

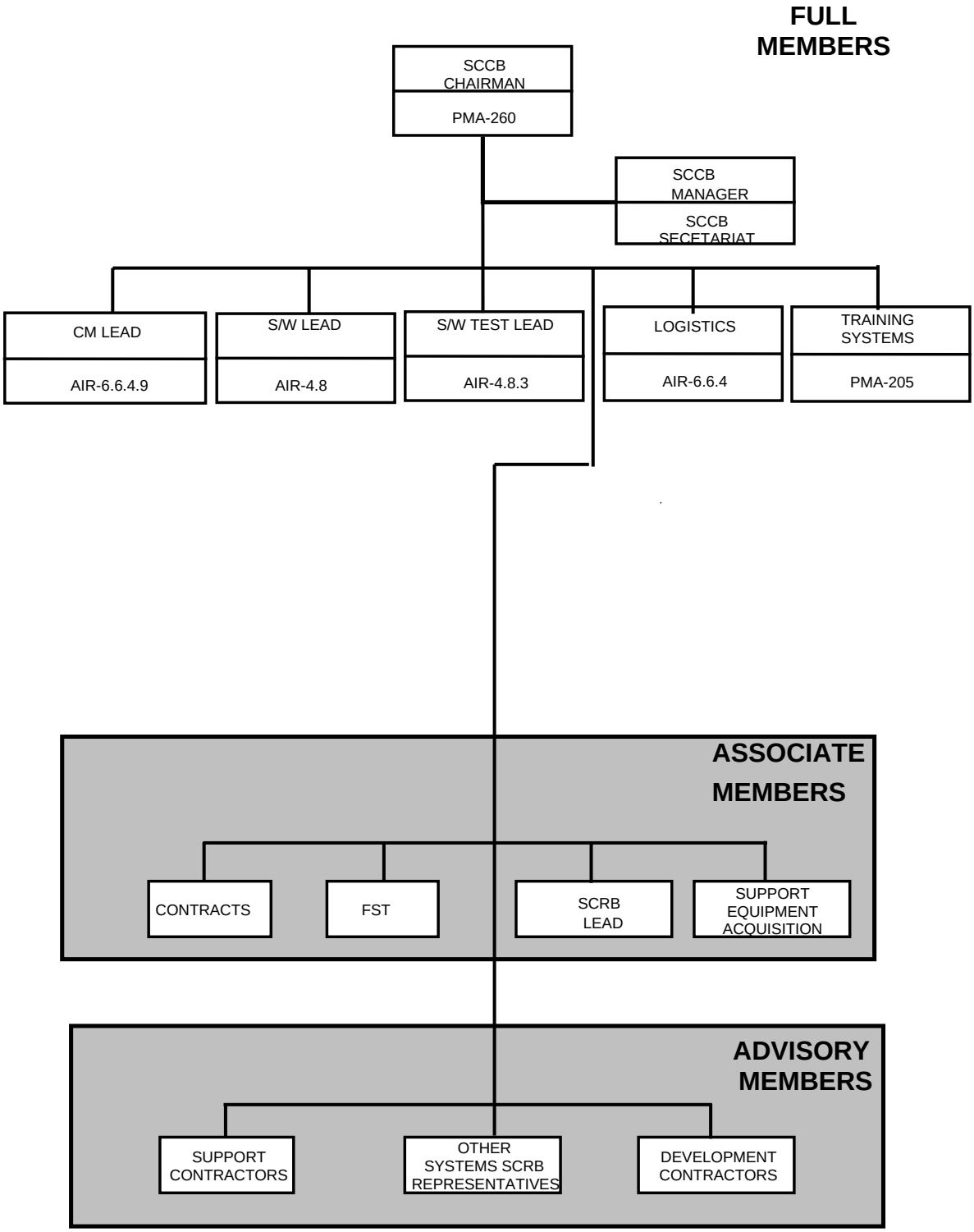
4.24 Block 24. Corrective Action Taken
Describe action being taken to correct non-conformance to prevent a future recurrence.

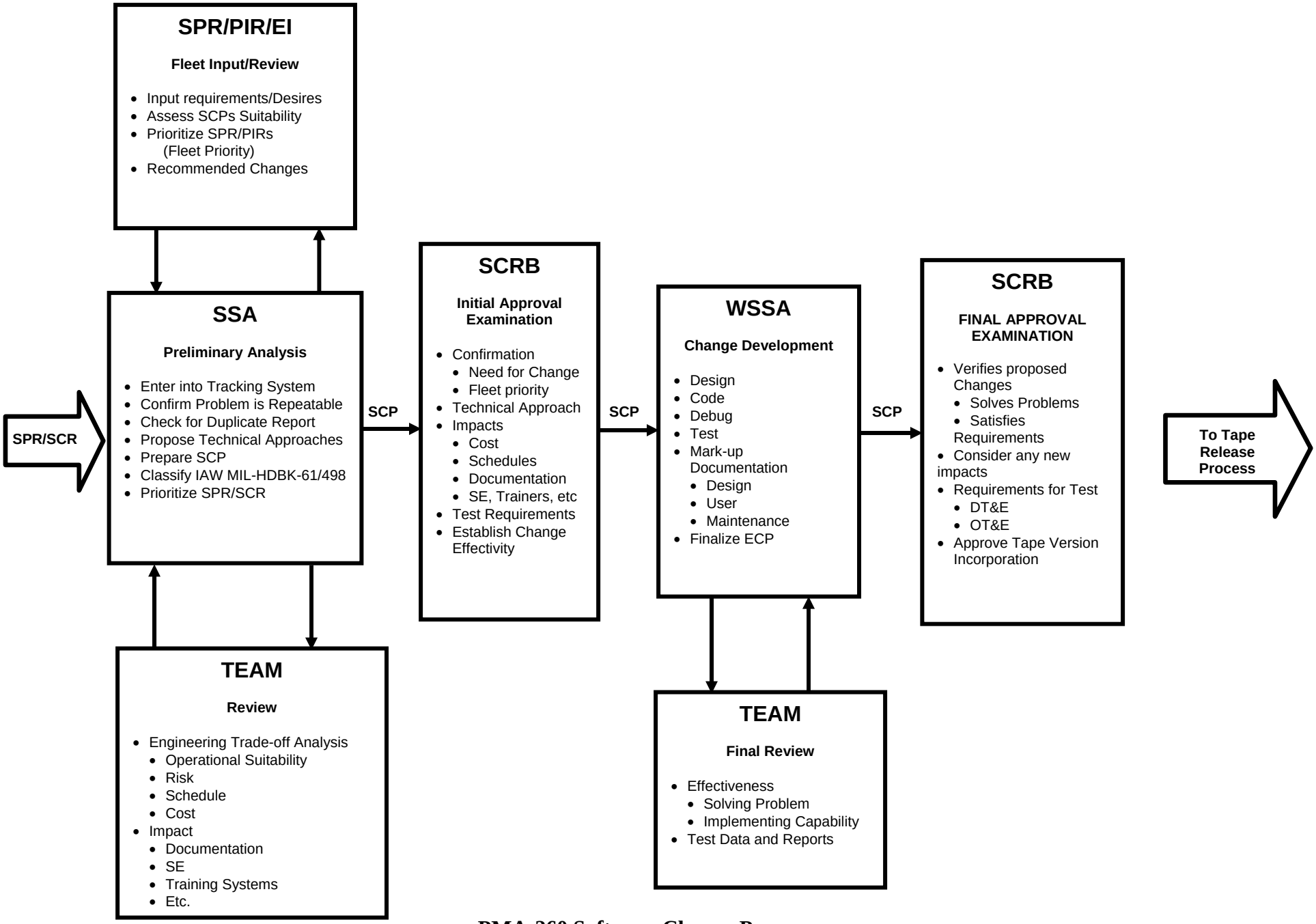
5.25 Block 25. Submitting Activity Authorized Signature
An authorized official of the activity entered in Block 4 shall sign in this block and enter title.

5.26 Block 26. Approval/Disapproval
This block will be completed by the Government activity/activities authorized to make the decision on the request for deviation or waiver.

Appendix D

SE SOFTWARE CHANGE CONTROL BOARD ORGANIZATION





PMA-260 Software Change Process

Appendix E

PMA-260 CM IPT Lead Configuration Management Checklist

When the need arises to generate a configuration action (CA) which will result in a change to a baseline CI, such as the request for an ECP, the IPTL shall address the following:

- Notify the Leadership Team of the impending CA. Include a general description of the change and it's function/purpose.

- Determine the baseline upon which this CA will be applied. At a minimum this shall include the aircraft variant and any prerequisite technical directives.

- Review NAVAIRINST 4130.1 Series, Naval Air Systems Command Configuration Management Policy.

- Review MIL-HDBK-61A, Table E-1 titled ECP Coordination and Communication at a Glance.

  NOTE: MIL-HDBK-61A Tables E-1, E-2, and E-3 are provided as attachments to this appendix.

- Ensure that the IPT System Engineer is thoroughly familiar with both MIL-HDBK-61A and the PMA-260 Configuration Management Plan. The IPTL is ultimately responsible for adherence to these documents.

- Submit an ECP as early as possible in the process. This should be completed prior to commencing the non-recurring engineering effort. Realize that the ECP is a *proposal* that will allow the team to assess the potential impacts of this change.

- Develop a plan for completing the Functional and Physical Configuration Audits.

ECP Coordination and Communication

ECP Request Phase	ECP Preparation Phase	ECP Approval Phase
Four Months Prior to ECP Request Government informally advise developer of: • General description of desired change – Function – Purpose – Design baseline – Any anticipated: ♦ Key PRF Spec changes ♦ Key warranty changes • Desired: – ECP Submit Date – Forward Fit Effectivity – Retrofit Effectivity – Delivery Schedule • Planned Installer • Anticipated Level of Install • Program/Cost-Profile Constraints • Any Unusual: – Spares Requirements – Data Requirements (New or Revised) – Training System Requirements – Interim Support (Interim Spares, O/I/D Level Spares) • Any Plans to Furnish: – GFE/GFI – Government Facilities/ Personnel • FMS/Joint-Services Requirements • Anticipated Release Date for ECP Request **Two Months Prior to ECP Request** Government informally advise developer of: • Any updates to above Developer informally advises Government of: • General acceptability of planned ECP Request • Any issues with plans or ECP submittal schedule **Upon Release of ECP Request** Government provides developer: • Official ECP Request – Compliant with **Checklist A** • Signed by Program Manager designated official	**Within Two Weeks After Receipt of preliminary ECP Request** Developer informally advises Government of: • Receipt of Request (Start date of preparation cycle) • Estimated ECP submission date • Any noted problems or deficiencies with request **2nd Month after Receipt of ECP Request (and every 2 months)** Developer informally advises Government of: • General approach being taken (Draft SOW) • General preparation status of SOW, Pricing, Vendor Interface, Other • List of Acquisition Logistics items being addressed: – LSAs/Maintenance Plan – Tech Manuals: ♦ Operator ♦ Maintenance ♦ Trainers – Interim Support ♦ Interim Spares ♦ O/I/D Level Spares – Spares/Repair Parts – Training – Trainers & Support for Trainers – Support Equipment / Software ♦ Development ♦ Production ♦ Logistics ♦ Spare/Repair Parts – Packaging, Handling, Shipping • Intended Data deliverables • Need for Govt. Facilities, Personnel, GFE or GFI **Within 3 Working Days After Discovery of Problem** • Govt. PM informally advise developer of any requirement change • Developer informally advise Govt. PM of significant deficiency/issue **Upon Release of ECP** Developer provides Government: • Official ECP – Compliant with **Checklist B**	**Within One Month After Receipt of formal ECP** Government informally advises developer of: • Receipt of ECP • Status of Decision memo • Availability of Funding **Monthly** Government informally advise developer of: • ECP Decision memo Status • ECP Approval Status – Engineering – Acquisition Logistics – Other • Estimated CCB Approval Date • Availability of Funding • Anticipated Contractual Authorization Date Developer advise Government of: • Any change in validity of submitted (active) ECPs

Table E-1

Checklist A – Request for an ECP Readiness for Release for Class I ECPs

Item	Check if Adequately Addressed
General Description Of Desired Change	
Function	
Purpose	
Design Baseline	
Any Anticipated: Key Performance/Spec Changes	
Key Warranty Changes	
Interchangeability/Replacability Issues	
Reliability & Maintainability/Life Cycle Cost Impact	
Desired: RFP Date	
ECP Submit Date	
Effectivity – Forward Fit	
Effectivity – Retrofit	
Delivery Schedule (Government Desired)	
Trainers/Training	
Support Equipment	
Logistics/Spares Support	
Packaging, Handling, Storage And Transportability (PHST)	
Shipping Containers	
Planned Installer	
Anticipated Level Of Install	
Program Constraints – (Scheduling Impacts, etc.)	
Any Unusual: Logistic/Spares Requirements	
Data Requirements (CDRLs)	
Vendor	
Interim Support	
Interim Spares	
O/I/D Level Spares	
Any Plans To Furnish: GFE/ GFI	
Government Facilities/Personnel	
Commonality And Interoperability	
FMS/Joint-Services Requirements	
Possible Tailoring Of Mil-Std Requirements	
Testing/Qualification Requirements (Fatigue, Power Distribution, Etc.)	
Manufacturing Requirements (Tooling, Etc.)	
Cost/No Cost (If Cost: Type, Desired Effectivity Of Pricing, i.e., 180 Day)	

Table E-2

Checklist B – ECP Readiness for Submittal

Item	Check if Required		If Yes, Check if Provided		
	Yes	No	Description	Schedule	Cost
Engineering Design, Development & tests					
Nature of Change (Safety, etc.)					
Design Baseline	X				
Design					
Analyses					
Cross-IPT & ICWG issues resolved	X				
Drawings (Production/Retrofit)					
Qualification					
Automatic Test Procedure & Equipment					
R&M Analyses/Test					
Regression Testing					
Trial Kit Install					
Other Testing/Field Evaluation					
Spec Changes: Weight and Balance			*		
Service Life			*		
Performance			*		
Interchangeability/ Replacability			*		
Obsolescence			*		
Other			*		
Data Deliverables (CDRLS)					
Flight Hour Program (FHP)	X				
Bailed/GFE Aircraft or other Equipment					
Other Equipment Affected (GFE Design, Second Source, Trainers, Etc)					
Tooling					
GFE/GFI					
Prod Incorporation (Recurring)					
Effectivity					
FMS					
Logistics Support (New & Retrofit)					
LSA/Maintenance Plan					
Support Material List					
Repair Parts					
Provisioning/(Design Change Notices)					
Tech Manuals					
Operator					
Maintenance					
Trainers					

Table E-3

* Provide Specification Change Detail (Was/Is or Revision Annotation) in ECP

Item	Check if Required		If Yes, Check if Provided		
	Yes	No	Description	Schedule	Cost
Interim Support					
Interim Spares					
I/O/D Level Spares					
New Spares					
Training					
Trainers					
Support for Trainers					
Support Equipment: SERD					
Nonrecurring Engineering					
Recurring (Prod/Retro)					
ILS (Training, LSA, CETS)					
Spares					
Repair Parts					
Technical Directive					
Validation/Verification					
Packing, Handling, Storage and Transportability					
Shipping Containers					
Government Facilities/Personnel					
Retrofit:					
Tech Directive					
Validation					
Verification					
Kits for Basic Equipment					
MOD for Basic Equipment (Install)			#		
Kits for Maintenance Trainers					
MOD of Maintenance Trainers (Install)			#		
Kits for OPS Trainers					
MOD of OPS Trainers (Install)			#		
Kits for Spares					
MOD of Spares			#		
Other:					
Impact on Ozone Depleting Substances					
Environmental Considerations					
Additional Impacts Not Specifically Covered Above					

Table E-3 (Cont.)

Effectivity, Maintenance Level & Location

Appendix F

Instructions for Preparation of a Notice of Revision Utilizing DD Form 1695

1. GENERAL

SCOPE
This Appendix establishes uniform requirements for preparing DD Form 1695, "Notice of Revision". The information contained herein is intended for compliance.

APPLICATION
The DD Form 1695, Notice of Revision, shall be utilized to describe the exact change(s) to be made to each drawing, associated list, or other affected document (in accordance with Section 5.6.3 of the CMP) when specified as a data requirement in the contract. (NORs are normally associated with Class II type changes and are, as a rule, applicable where documents affected by the ECP or change are not controlled by the preparing activity.)

2. APPLICABLE DOCUMENTS
Not applicable to this Appendix.

3. DEFINITIONS
For purposes of the definitions used in this Appendix, the definitions contained in Appendix A of this document shall apply.

4. GENERAL REQUIREMENTS
Use of DD Form 1695. The contractor shall use DD Form 1695, Figure 12, to propose revisions to drawings, associated lists, or other referenced documents which require revision after ECP approval. Local reproduction of DD Form 1695 is authorized.

5. DETAILED REQUIREMENTS
Detailed instructions for completion of the DD Form 1695.

<table>
<tr><td colspan="2">NOTICE OF REVISION (NOR)</td><td>1. DATE (YYYYMMDD)</td><td>Form Approved
OMV No. 0704-0188</td></tr>
<tr><td colspan="3" rowspan="2">Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information and Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paper work Reduction Project (0704-0188), Washington, DC 20503.
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURRING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.</td><td>2. PROCURING ACTIVITY NUMBER</td></tr>
<tr><td>3. DODAAC</td></tr>
<tr><td>4. ORIGINATOR</td><td rowspan="2">b. ADDRESS (Street, City, Zip Code)</td><td>5. CAGE CODE</td><td>6. NOR NO.</td></tr>
<tr><td>a. TYPED NAME (First, Middle, Last)</td><td>7. CAGE CODE</td><td>8. DOCUMENT NO.</td></tr>
</table>

5.1 Block 1. Date (YYYYMMDD)
Enter the submittal date of the NOR. Normally this date will be identical to the ECP submittal date.

5.2 Block 2. Procuring Activity No
To be used by Government for entry of interim processing number, if desired.

5.3 Block 3. DODAAC
Enter the DODAAC of the procuring activity. (Applicable to government activities only)

5.4 Block 4a. and b. Originator Name and Address

Enter the name and address of the contractor or Government activity submitting the proposed NOR.

Block 5. CAGE Code
Enter the originator's CAGE code of the design activity for the drawing/document identified in Block 8. DLA Cataloging Handbook H4/H8 contains these codes.

5.6 Block 6. NOR Number
Unless the use of a Government assigned number is Prescribed, the originating shall either assign a number or enter the document number and new revision letter as the NOR number. When the requirement in the contract identifies the NOR by ECP number, the originator shall attach a dash number (i.e., xxx-1).

5.7 Block 7. CAGE Code
Enter the CAGE Code of the activity whose NOR number is assigned.

5.8 Block 8. Document NO.
Enter the number of the drawing, specification, list or other document(s) to be revised.

9. TITLE OF DOCUMENT	10. REVISION LETTER		11. ECP NO.
	a. CURRENT	b. NEW	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES			

5.9 Block 9. Title of Document
Enter the title of the document to which the NOR applies.

5.10 Block 10. Revision Letter

5.10.1 Block 10a. Current
Show the existing revision of the document for which the NOR is prepared.

5.10.2 Block 10b. New
Show the revision letter proposed for the revision covered by the NOR. Usually the new letter will be the one following the current letter in alphabetical sequence, unless there are known outstanding NORs, which may not have been incorporated.
NOTE: The Government may change the new revision letter proposed by the contractor in order to retain a proper sequence of approved revisions.

5.11 Block 11. ECP Number
Enter the number of the ECP describing the engineering change which necessitates the document revision covered by this NOR.

5.12 Block 12. Configuration item or System to Which ECP Applies
Enter Government assigned system designation (if any); otherwise, enter the name and type designation of the CI to which the ECP applies (see Blocks 8a, 8c and 16 on ECP Form 1692).

12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES

5.13 Block 13. Description of Revision
Describe the revision in detail, giving the exact wording of sentences or paragraphs that are to be added, or that are to replace designated sentences or paragraphs of the current document. `State the dimensions, tolerances and other quantitative requirements that are to replace current requirements. Attach a marked print when necessary to clearly explain the desired revision. Use a "From - To" format in the description of the change. If additional space is needed, use continuation pages.

5.14 Block 14. This section is for Government use only

14. THIS SECTION IS FOR GOVERNMENT USE ONLY				
a. (X One)		(1)	Existing document supplemented by this NOR may be used in manufacture.	
		(2)	Revised document must be received before manufacturer may incorporate this change.	
		(3)	Custodian of master document shall make above revision and furnish revised document.	
b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT			c. TYPED NAME *(First, Middle, Last)*	
d. TITLE	e. SIGNATURE			f. DATE

Block 14a. Document Status
The Government approving activity will enter an "X" in the first box if manufacturer may proceed using the existing document as modified by this NOR. If so, a copy of the approved NOR will be furnished both to the contractor submitting the ECP and to the custodian of the master document. The Government approving activity will enter an "X" in the second box if the contractor is not authorized to incorporate the change proposed by the submitted NOR until receipt of the revised document. The Government approving activity will enter an "X" in the third box directing the custodian to make the change and distribute copies of the revised document. The distribution list may be entered on a referenced enclosure, or in a letter of transmittal.

5.14.2 Block 14b. Activity Authorized to Approve Change
The name of the activity authorized to approve the ECP and the associated NORs for the Government will be entered by such activity.

5.14.3 Block 14c. Typed Name
The typed name of the person authorized to approve the ECP and the associated NORs for the Government will be entered by such activity.

5.14.4 Block 14d Title
Title of the authorized representative of the Government.

5.14.5 Block 14e Signature
Signature of the authorized representative of the Government.

5.14.6 Block 14f. Date
Enter of the date of approval.

15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (SIGNATURE)	c. DATE SIGNED *(YYMMDD)*

DD Form 1695

5.15 Block 15. Activity

5.15.1 Block 15a. Activity Accomplishing Revision
The name of the activity (custodian) that is directed to make the revision in the master document will be entered by the approving activity.

5.15.2 Block 15b. Revision Completed (Signature)
An authorized representative of the custodian shall sign in this block to certify that the revision described by the NOR has been accomplished. The signed original shall be returned to the Government or held by the activity that maintains the master document.

5.15.2 Block 15c. Revision Completed Date
The authorized representative of the custodian shall enter the date of the accomplishment.

Appendix G

Engineering Change Proposal (ECP) Classification Instructions

1. BACKGROUND

ECPs may be classified as Class I or Class II. The classification is an indication of the degree of impact of the changes as well as how the changes will be processed and approved. Proper configuration control requires that proposed engineering changes to Configuration Items (CIs) be fully documented and approved by the proper authorities. For effective management of engineering changes in terms of technical impact, cost, and time, it is extremely important that all changes be properly classified.

The engineering change process is the responsibility of the PMA-260 Configuration Management (CM) Program Manager. The NAVAIRSYSCOM (AIR-1.1.5) NAVAIR Centralized Change Control Board (CCB) has the responsibility for approving or disapproving Class I ECPs. Unless otherwise specified in the contract, the NADEP NORIS Class II ECP CCB has responsibility for approving or disapproving Class II ECPs.

2. DISCUSSION

MIL-STD-973 provided the criteria for classifying an ECP as either a Class I or a Class II change. Although this MIL-STD has been rescinded, the criteria it contained for classification is still accurate and is used to classify all engineering changes. A primary consideration is that both Class I and Class II proposed change designations apply only to approved functional, allocated, or product baselines. The MIL-STD-973 criteria appears quite definitive. However, proposed changes often require careful interpretation to distinguish between the Class I and Class II categories. While processing changes as Class I promotes strict configuration review and control if CIs, there are significant monetary, schedule, and human resource costs associated with that processing and subsequent ECP implementation tasks.

MIL-STD-973 defined a Class II change as one that does not fall within the definition of a Class I change. One example is a change in documentation which, in itself, does not affect product configuration (such as correcting drafting errors or adding clarifying notes or views to drawings). A second example is a change in hardware, which does not affect technical performance requirements or baseline requirements (such as substituting an alternative material).

3. CLASSIFICATION

While MIL-STD-973 is very explicit regarding what constitutes a Class I change, the reality is that many changes have nuances that make classifying them a difficult task. In addition, classification requirements are spread over a number of pages in the Military Standard. Personnel performing the classification task must be intimately familiar with the applicable section of MIL-STD-973, in order to properly apply its classification criteria. Knowledge of the Functional Configuration Documentation (FCD), Allocated Configuration Documentation (ACD), and the Product Configuration Documentation (PCD) are also required. The classification instructions contained in this document present a more simplified and disciplined method of considering change classification criteria while remaining within the constraints of MIL-STD-973. These instructions also include requirements cited in the FCD, ACD, and PCD, or refer to those documents.

An engineering change shall be classified as a Class I or Class II by the preparing activity in accordance with this appendix. Class I ECPs shall be referred to NAVAIR 1.1 for approval or disapproval. Classification disagreements shall be referred to PMA-260 for final decision.

3.1 CLASS I ENGINEERING CHANGES

A proposed engineering change to a CI, or to any combination or discrete portion thereof, shall be determined to be a Class I by examining the factors below, as contractually applicable, to determine if they would be impacted as a result of implementing the change. The change will be Class I if it affects the form, fit, or function of the item or if:

a. The FCD or ACD, once established, is affected to the extent that any of the following requirements would be outside specified limits or specified tolerances:

    (1) Performance
    (2) Reliability, maintainability, or survivability
    (3) Weight, balance, or moment of inertia
    (4) Electromagnetic characteristics
    (5) Other technical requirements in the specifications

b. A change to the PCD, once established, will affect the FCD or ACD as described above or will impact one or more of the following:
    (1) GFE
    (2) Safety
    (3) Compatibility or specified interoperability with interfacing CIs, support equipment or support software, spares, trainers or training devices/equipment/software
    (4) Configuration to the extent that retrofit action is required
    (5) Delivered operation and maintenance manuals for which adequate change/revision funding is not provided in existing contracts
    (6) Preset adjustments or schedules affecting operating limits or performance to such extent as to require assignment of a new identification number
    (7) Interchangeability, substitutability, or replaceability as applied to CIs, and to all subassemblies and parts except the pieces and parts of non-repairable subassemblies
    (8) Sources of CIs or repairable items at any level defined by source-control drawings
    (9) Skills, manning, training, biomedical factors, or human-engineering design

c. Any of the following contractual factors are affected:
    (1) Cost to the government including incentives and fees
    (2) Contract guarantees or warranties
    (3) Contractual deliveries
    (4) Scheduled contract milestones

Class I engineering changes should be limited to those which are necessary or offer some significant benefit to the government. Such changes are those required to:

(a) Correct deficiencies
(b) Add or modify interface or interoperability requirements
(c) Make a significant and measurable effectiveness change in the operational capabilities or logistics supportability of the system or item
(d) Effect substantial life cycle costs/savings
(e) Prevent slippage in an approved production schedule

3.2 CLASS II ENGINEERING CHANGES

An engineering change which impacts none of the Class I factors specified in Section 3.1 shall be classified as a Class II engineering change.

4. Classification Process

Using the FCD, ACD, and PCD with this Appendix is critical to the task of classifying ECPs. MIL-STD-973 is a generic document that is meant to support the classification task. It identifies these other documents as being integral to the classification task. Figure C-1 is an ECP Classification Flowchart. The questions in the flowchart represent a summary of relevant MIL-STD-973 criteria and criteria in the FCD, ACD, and PCD. The classification criteria that is often overlooked or misunderstood is emphasized in the flowchart. In applying other criteria, the user is merely referred to the appropriate document(s).

The data in Sections 3.1 and 3.2 along with the ECP Classification Flowchart should be used when classifying changes as Class I or Class II. The user must have a clear understanding of the mechanics of the change that is being proposed as well as the overall effect the change will have on the TDP for the CI.

5. DEFINITIONS

This section is not inclusive of all terms used in the ECP Classification Flowchart. It provides definitions of the more critical terms used in the flowchart, and terms that are most often misunderstood. These definitions were extracted from the 31 March 1997 Draft of MIL-STD-2549**.**

Supplemental information was added to a few of the definitions; those supplements are italicized.

- ***Allocated Configuration Documentation (ACD)*** The documentation describing a Configuration Item's (CI) functional, performance, interoperability, and interface requirements that are allocated from those of a system or higher level CI. Interface requirements with interfacing CIs; and the verifications required to confirm the achievement of those specified requirements.

- ***Configuration Item (CI)*** Is any hardware, software, or combination of both that satisfies an end use function and is designated for separate configuration management. CIs are typically referred to by an alpha numeric identifier that also serves as the non-changing base for the assignment of serial numbers to uniquely identify individual units of the CI.

- ***Fit.*** The ability of an item to physically interface or interconnect with or become an integral part of another item.

- ***Form.*** The shape, size, dimensions, mass weight, and other physical parameters which uniquely characterize an item.

- ***Function.*** The action or actions which an item is designed to perform. *See "Functional Characteristics".*

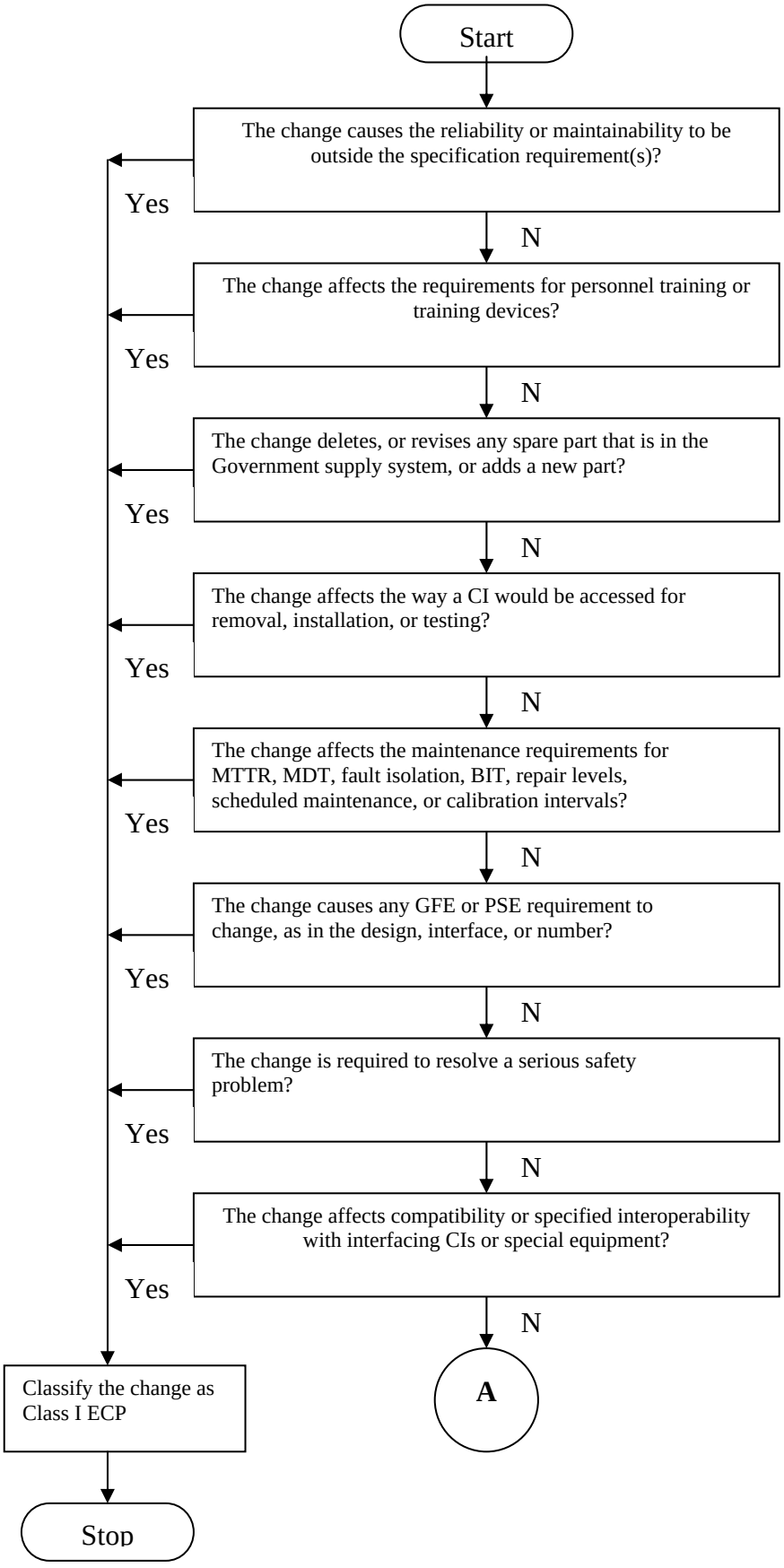
- ***Functional Characteristics***. The quantitative performance parameters and design constraints, including the operational and logistic parameters and their respective tolerances. Functional characteristics include all performance parameters, such as speed, range, lethality, reliability, maintainability, and safety.

- ***Functional Configuration Documentation (FCD).*** The documentation describing the system's functional, performance, interoperability, and interface requirements and the verifications required to demonstrate the achievement of those specific requirements*. This is the Prime Item Development Specification (PIDS).*

- ***Interchangeable Item.*** An item which (1) possesses such functional and physical characteristics as to be equivalent in performance, reliability, and maintainability, to another

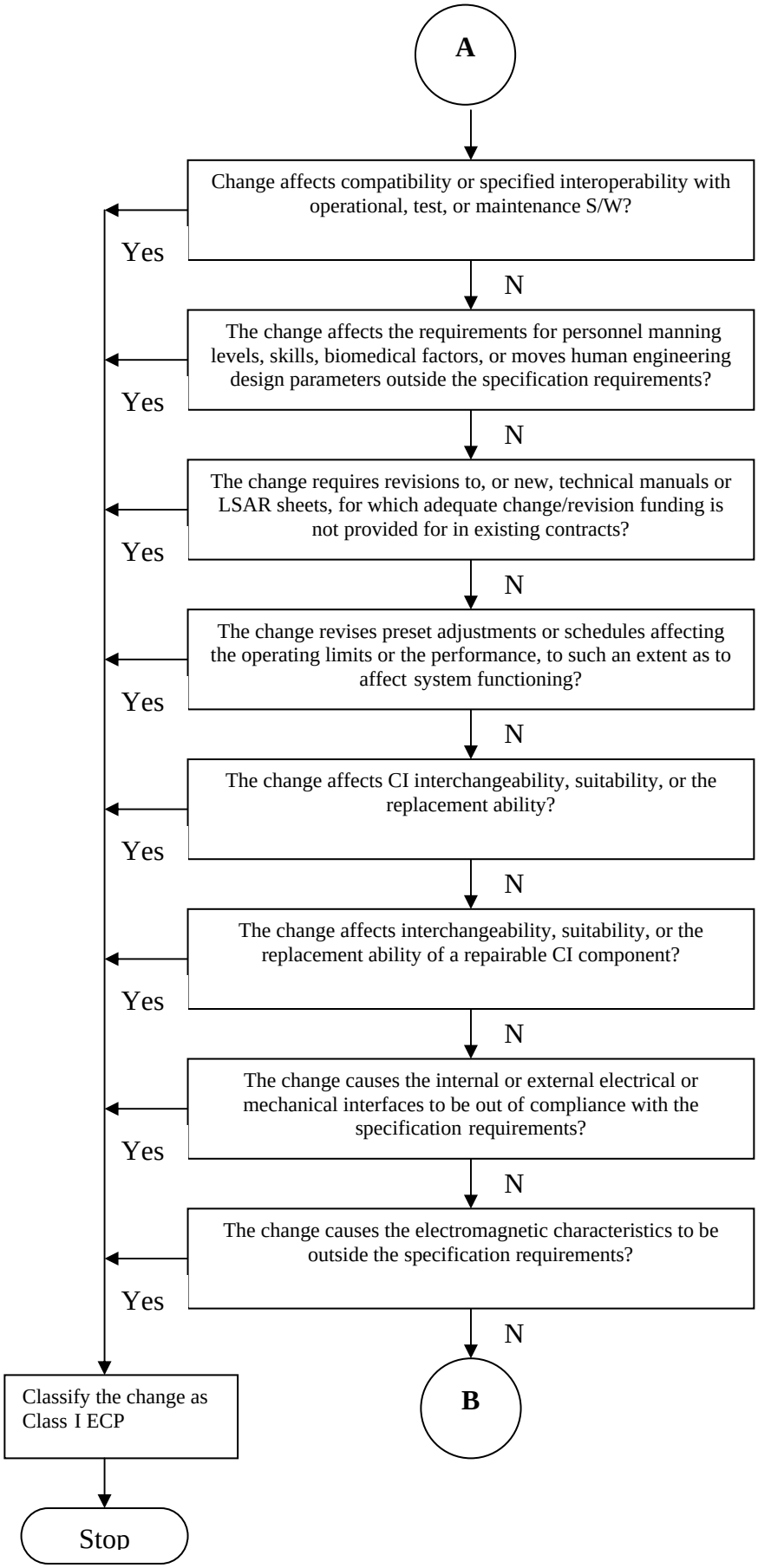
item of similar or identical purposes; and (2) is capable of being exchanged for the other item (a) without selection for fit or performance, and (b) without alteration of the items themselves or of adjoining items, except for adjustments.

- ***Product Configuration Documentation PCD)*** The CI's detail design documentation including those verifications necessary for accepting product deliveries (first article and acceptance inspections). Based on program production/ procurement strategies, the design information contained in the PCD can be as simple as identifying a specific part number or as complex as full design disclosure. *This is the CASS Part II Specification, or Prime Item Product Fabrication Specification (PIPFS).*



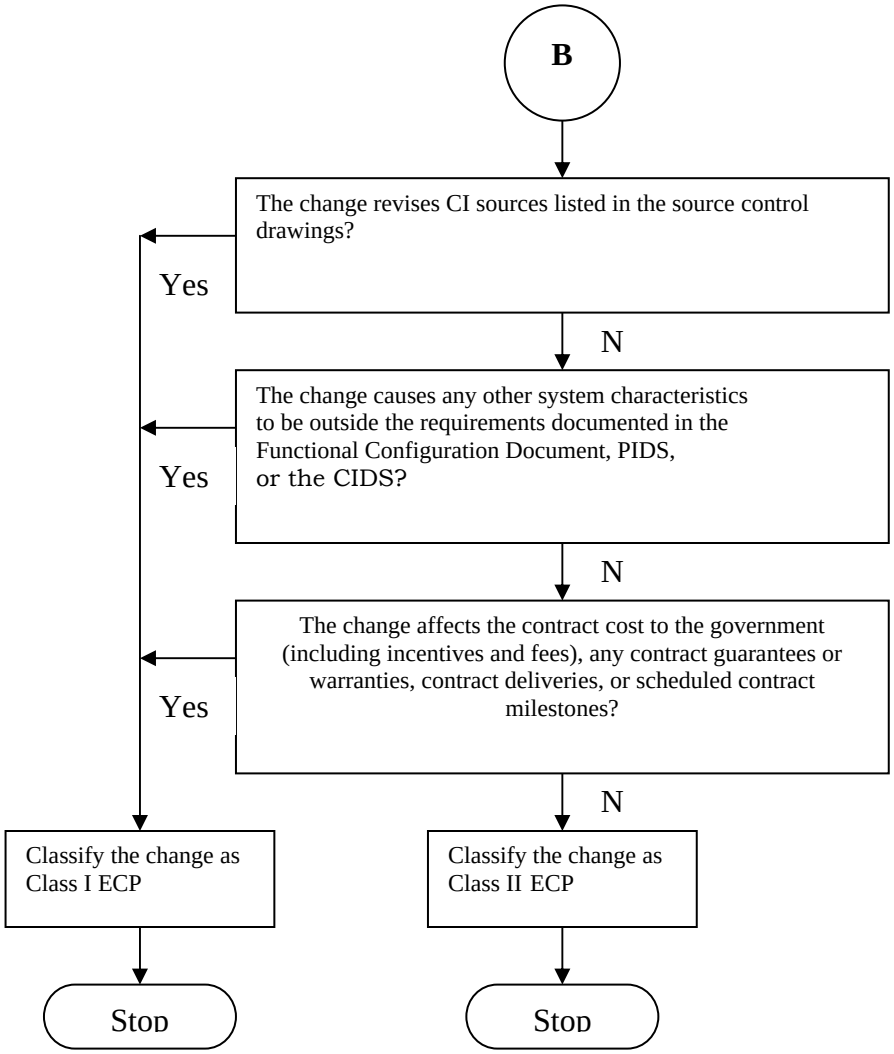
BIT	Built In Test
CI	Configuration Item
ECP	Engineering Change Proposal
GFE	Government Furnished Equipment
MDT	Mean Down Time
MTTR	Mean Time To Repair
PSE	Peculiar Support Equipment

Figure G-1: ECP Classification Flowchart (Sheet 1 of 3)



CI Configuration Item
ECP Engineering Change Proposal
LSAR Logistics Support Analysis Record

Figure G-1: ECP Classification Flowchart (Sheet 2 of 3)



CI Configuration Item
CIDS Critical Item Development Specification
ECP Engineering Change Proposal
PIDS Prime Item Development Specification

Figure G-1: ECP Classification Flowchart (Sheet 3 of 3)

Appendix H

ECP Development Instructions

1. GENERAL

1.1 SCOPE
This instruction was developed to provide guidance to Contractors and the Government personnel in the preparation of Contractor and Organic versions of the Engineering Change Proposal (ECP), DD Form 1692. The information contained herein is intended for compliance.

2. APPLICATION
The provisions of this instruction apply to all Class I ECPs prepared by contractor and Government activities supporting PMA-260 programs.

3. GENERAL REQUIREMENTS

ECP FORMS
DD Forms 1692 through 1692/6 are not a requirement of MIL-STD-973, Change 3, and are provided therein as reference only. According to MIL-STD-973, ECPs may be prepared in local format containing the information required in block number sequence. It is however, established PMA-260 program policy to use the DD Form 1692 for both contractor and organic ECPs.

SUPPORTING DATA
Formal ECPs shall be supported by drawings and other data (e.g., LSA data, detailed cost proposal data, test data and analyses) to justify and describe the change and to determine the total impact including assessments of changes to system operational employment characteristics. A summary of any testing done by the contractor to validate concepts of new technology to be presented in the supporting data, and details of such test data shall be provided if it is vital to the decision regarding acceptance of the change.

DETAILED REQUIREMENTS
This document has been created to provide adequately detailed instructions to allow completion of an ECP Form 1692.

Appendix A contains a list of acronyms used in the development of this procedure.

3.1 ENGINEERING CHANGE PROPOSAL (ECP) PAGE 1

<table>
<tr><td colspan="3">ENGINEEERING CHANGE PROPOSAL (ECP),</td><td>1. DATE (YYMMDD)</td><td>Form Approved
OMV No. 0704-0188</td></tr>
<tr><td colspan="4">Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information and Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paper work Reduction Project (0704-0188), Washington, DC 20503.
PLEASE <u>DO NOT</u> RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURRING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE <u>COMPLETED DD FORM 1692.</u></td><td>2. PROCURING ACTIVITY NO.

3. DODAAC</td></tr>
<tr><td colspan="2">4. ORIGINATOR
a. TYPED NAME (First, Middle, Last)</td><td>b. ADDRESS (Street, City, Zip Code)</td><td colspan="2">5. CLASS OF ECP

6. JUST. CODE | 7. PRIORITY</td></tr>
</table>

3.1.1 Block 1. Date
Enter the submittal date of the ECP in the month/day year (yy/mm/dd/) format. Update with each subsequent submittal.

3.1.2 Block 2. Procuring Activity Number

This block is used by the PMA-260 Configuration Manager (CM) to provide an internal processing number.

3.1.3 Block 3. DODAAC
If a government agency is developing the ECP, enter the Department of Defense Activity Address Code (DODAAC) of your activity. Contractors leave blank.

3.1.4 Block 4. Originator Name and Address
Self Explanatory

3.1.4.1 Block 4a. Typed Name
If you are the originator of the ECP, enter your name here.

3.1.4.2 Block 4b. Address
Enter your complete mailing address here.

3.1.5 Block 5, Class of ECP
Enter the Class of the ECP in this block. Class II ECPs are not submitted by Government activities. Therefore, government activities will always enter a "I" in this block. See Appendix C for details.

3.1.6 Block 6. Justification Code
Enter the applicable justification code for Class I ECPs. These codes are:
B – Interface **C** – Compatibility **D** – Deficiency **O** - Operational or Logistics Support
P - Production stoppage **R** - Cost Reduction **S** – Safety **V** - Value Engineering
Value engineering ECPs are identified both by the "V" in Block 6 and by the entering this notation across the top of Page 1 of the ECP form: "VALUE ENGINEERING CHANGE PURSUANT TO CONTRACT CLAUSE"

3.1.7 Block 7. Priority
Enter the recommended priority, either "E", "U", or "R" (Emergency, Urgent or Routine).

<table>
<tr><td colspan="4">8. ECP DESIGNATION</td><td colspan="3">9. BASELINE AFFECTED</td></tr>
<tr><td>a. MODEL/TYPE</td><td>b. CAGE CODE</td><td colspan="2">c. SYSTEM DESIGNATION</td><td colspan="3">☐ FUNCTIONAL ☐ PRODUCT
☐ ALLOCATED</td></tr>
<tr><td colspan="2">d. ECP NO.</td><td>e. TYPE</td><td>f. REV</td><td colspan="3">10. OTHER SYS./CONFIG. ITEMS AFFECTED
☐ YES ☐ NO</td></tr>
</table>

3.1.8 Block 8. ECP Designation

3.1.8.1 Block 8a. Model/Type
Enter the model or type designation of the Configuration Item (CI) for which this proposal is being submitted.

3.1.8.2 Block 8b. CAGE Code
Enter the five digit Commercial and Government Entity (CAGE) code for the activity originating the ECP.

3.1.8.3 Block 8c. System Designator
Enter the assigned system or top level CI designation or nomenclature, if known.

3.1.8.4 Block 8d. ECP Number
Enter a unique ECP number identifying the submitting activity, year, and sequential number for ECPs submitted during the year in this block. (e.g. LKE-01-001)

3.1.8.5 Block 8e. Type
Enter a "P" if the ECP is a Preliminary, or an "F" if it is Formal.

3.1.8.6 Block 8f. Revision
If the ECP is a revision, enter the revision number (i.e., R1, R2 etc).
NOTE: If you make an entry in this block, you must provide an explanation in Block 19. The date submitted (Block 1) shall be the date of the revised ECP.

3.1.9 Block 9. Baseline Affected
Place an "X" in the box(s) according to the baseline(s) affected.

3.1.10 Block 10. Other Systems/Configuration Items Affected
Enter an "X" in the "Yes" or "No" box, as applicable, to indicate whether there is an effect on other systems or CIs which will require the submittal of related Class I ECPs. Supply details in Blocks 28 and 30.
NOTE: An X in the “Yes” requires submission of Page 2 data.

11. SPECIFICATIONS AFFECTED					12. DRAWINGS AFFECTED			
	CAGE Code	Specification/Document No.	Rev.	SCN	CAGE Code	Number	Rev.	NOR
a. SYSTEM								
b. DEVELOPMENT								
c. PRODUCT								

3.1.11 Block 11. Specifications Affected
List the affected specification data in the appropriate category.
NOTE: The SCN category can list an SCN or a NOR.

3.1.12 Block 12. Drawings Affected
Enter the indicated information for all drawings affected by the ECP. The CAGE Code to be entered is that of the design activity whose number is assigned to the listed drawing(s).
NOTE: If more than three drawings are affected, enter the information required in the first line for the top-level drawing affected by the ECP and make direct reference on the second line to the enclosure and paragraph containing the list of all the affected drawings.

3.1.13 Block 13. Title of Change
Enter a brief descriptive title to identify the component or system affected by the ECP. Do not include the purpose or description that was entered in Block 16.

13. TITLE OF CHANGE		
14. CONTRACT NO. AND LINE ITEM	15. PROCURING CONTRACTING OFFICER	
	a. NAME (First, Middle Initial, Last)	
	b. CODE	c. TELEPHONE NO.

3.1.14 Block 14. Contract Number Line Item
Enter the number(s) of all currently active contract(s), and the affected contract line item number(s), at the originating CAGE- coded activity that are affected by the engineering change. If more contracts are affected than can be fit in the block, make reference to the enclosure and paragraph where this information is provided.

In the case of a Government-prepared change, and no contract line item numbers are involved, enter the task number that will fund and implement the ECP.

3.1.1.5 Block 15. Procuring Contracting Officer

NOTE: This information may not be required for block 15 when the Government is the activity preparing the ECP.

3.1.15.1 Block 15a. Name
Enter the procuring contracting officer's name applicable to the CI shown in Block 16.

3.1.1.5.2 Block 15b. Code
Enter the procuring contracting officer's code in this block.

3.1.15.3 Block 15c. Telephone
Enter the procuring contracting officer's telephone number in this block.

16. CONFIGURATION ITEM NOMENCLATURE		17. IN PRODUCTION ☐ YES ☐ NO
18. ALL LOWER LEVEL CONFIGURATION ITEMS AFFECTED		
a. NOMENCLATURE	b. PART NO.	c. NSN

3.1.16 Block 16. Configuration Item Nomenclature
Enter the assigned nomenclature (name and type designation) or authorized name and number of the CI(s) affected by the ECP.

3.1.17 Block 17. In Production
The "Yes" box shall be marked if deliveries have not been completed on the contract(s).
The "No" box shall be marked if the deliveries have been completed.

3.1.18 Block 18. All Lower Level Items Affected
List in this block all items affected below the indenture level of the item in Block 16.

3.1.18.1 Block 18a. Nomenclature
Enter the complete descriptive name of the indentured part(s) affected.

3.1.18.2 Block 18b. Part No.
The official part number is entered on this line. An attached list may be used when necessary.

3.1.18.3 Block 18c. NSN
Enter the National Stock Number, if applicable, for the part affected.

19. DESCRIPTION OF CHANGE
20. NEED FOR CHANGE

3.1.19 Block 19. Description of Change
Enter a detailed description of the change being proposed. For all ECP revisions enter, as the first entry in Block 19, “This is a Minor Revision” or “This is a Major Revision” as applicable.

Provide a description of the proposed change, including the purpose of the change, in sufficient detail to adequately describe what is to be accomplished. Phrase it in definitive language such that, if it is repeated in a contractual document authorizing the change, it will provide the authorization desired.

Provide a description as to which part of the item or system is being changed. Provide supplemental drawings and sketches to the extent necessary to clearly portray the proposed change. If the proposed change is an interim solution, document that fact in this block.

If additional space is needed, use the continuation pages for details but provide an overview in the this block. Include information as to whether the revision is a re-submittal, replacing the existing ECP in its entirety, or provides change pages to the existing ECP.

3.1.20 Block 20. Need for Change
Enter an explanation of the need for the change. Specifically identify the benefit of the change to the system. Describe, in detail, the nature of the defect, failure, incident, malfunction, etc. substantiating the need for the change. Make full utilization of available failure data. If the ECP is needed to correct maintenance/logistics problems, that fact will be included with sufficient detail to identify the issues. Use additional pages as required.

21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER	22. EFFECT ON PRODUCION DELIVERY SCHEDULE

3.1.2.1 Block 21. Production Effectivity by Serial Number
Enter the contractor's estimated production effectivity point for the production items including serial number, or other item identification (e.g., block or lot number) as approved by the Government. In determining the effectivity point for the proposed change, the contractor shall consider, in addition to the time factors, the availability of all support elements affected and the most economical point of introduction consistent with all the salient factors involved.

The earliest production incorporation is not necessarily the singular or most important factor in the establishment of a proposed change effectivity point. The effectivity point will be based on concurrent availability of all logistics support elements and materials affected by the change to the item.

3.1.2.2 Block 22. Effect on Production Delivery Schedule
State the estimated delivery schedule of items incorporating the change, either in terms of days after contractual approval, or by specific dates contingent upon contractual approval by a specified date. If there will be no effect on the delivery schedule, so state.

For a complex ECP, or for related ECPs, this delivery date will be repeated on the milestone chart together with the schedule for other interrelated actions.

3.1.23 Block 23. Retrofit

23. RETROFIT	
a. RECOMMENDED ITEM EFFECTIVITY	b. SHIP / VEHICLE CLASS AFFECTED
c. ESTIMATED KIT DELIVERY SCHEDULE	d. LOCATIONS OR SHIP / VEHICLE NUMBERS AAFFECTED

3.1.23.1 Block 23a. Recommended Item Effectivity
If you are recommending that the engineering change be accomplished in accepted items by retrofit (see Block 43), the quantities and serial (or lot) numbers of accepted items in which the change will be incorporated by retrofit are entered in this block, or in a referenced enclosure.

3.1.23.2 Block 23b. Ship/Vehicle Class Affected
When the delivered CI is installed in one or more ship/vehicle classes, enter the identification of such classes.

3.1.23.3 Block 23c. Estimated Kit Delivery Schedule

State the estimated kit delivery schedule by quantity and date. When special tooling for retrofit is required, reference an enclosure in Block 23b on which is specified the dates of availability of tools, jigs, and test equipment required in conjunction with the kits to accomplish the change.

3.1.23.4 Block 23d. Locations or Ship/Vehicle Numbers Affected
State the location (s) at which retrofit is to be accomplished. if the retrofit is to be accomplished on ships (or in vehicles for which the serial numbers are not shown in Block (23), enter the locations or ship/vehicle serial numbers.

For CSCI changes which are to be incorporated as part of a hardware or equipment change, and where implementation of the CSCI change is per hardware retrofit schedule, or where the fielded version of the software is to be replaced the appropriate information will be included in Blocks 23a -23d.

If the software change is part of a larger hardware or equipment change and incorporation of the software change is per hardware retrofit schedule, enter the appropriate information here either directly or by reference.

3.1.24 Block 24. Estimated Costs/Savings Under Contract
If this ECP has contract costs/savings impacts, enter the total estimated cost/savings here. This figure normally will be the same as that on the bottom line of column "f" on Page 4 or, if there are related ECPs, in column "d", line "e", of Page 5.

24. ESTIMATED COSTS / SAVINGS UNDER CONTRACT	25. ESTIMATED NET TOTAL COSTS / SAVINGS
26. SUBMITTING AGENCY a. AUTHORIZED SIGNATURE	b. TITLE

3.1.25 Block 25. Estimated Net Total Costs/Savings
Enter the total estimated costs/savings impact of the basic and all related ECPs, including other costs/savings to the Government. This figure normally will be the same as that in column "f" the bottom line of Page 4 or, if there are related ECPs, in column "c", line "e", of Page 5.

3.1.26 Block 26. Submitting Activity Authorized Signature

3.1.26.1 Block 26a. Authorized Signature
An authorized official of the activity entered in Block 4 shall sign this block.

3.1.26.2 Block 26b. Title
The title of the signing official shall be entered here. This indicates the ECP has the official sanction of the submitting activity.

3.1.27 Block 27. Approval/Disapproval
Is used by the Government for ECP classification concurrence and for ECP approval/disapproval.

The Contract Administration Office (CAO) will review all contractor prepared ECPs. For Class I ECPs the CAO will recommend approval or disapproval and for Class II ECPs, the CAO will concur that it is properly classified as Class II.

The PMA-260 Configuration Manager uses Block 27 to approve contractor prepared Class II ECPs. The Program Office uses Block 27 to approve all Class I ECPs.

For ECPs prepared by the Navy, Block 27 is used a little differently than for contractor prepared ECPs. The Configuration Manager uses it to approve Class II ECPs and to recommend approval of Class I ECPs.

3.1.27.1 Block 27a. CLASS I Approval/Disapproval

The Contract Administration Office recommends to the Program Office approval or disapproval of all contractor submitted Class I ECPs. For organic Class I ECPs, this recommendation is provided by the PMA-260 Configuration Manager.

27. APPROVAL / DISAPPROVAL									
a. CLASS I				b. CLASS II				c. CLASS II			
	APPROVAL RECOMMENDED		DISAPPROVAL RECOMMENDED		APPROVED		DISAPPROVED		CONCUR IN CLASSIF-CATION OF CHANGE		DO NOT CONCUR IN CLASSIF-CATION OF CHANGE
d. GOVERNMENT ACTIVITY				e. SIGNATURE				f. DATE SIGNED *(YYMMDD)*			
g. APPROVAL APPROVED DISAPPROVED		h. GOVERNMENT ACTIVITY		I. SIGNATURE				j. DATE SIGNED *(YYMMDD)*			

DD Form 1692, APR 92 ***Previous editions are obsolete.***

3.1.27.2 Block 27b. CLASS II Approval/Disapproval
For SE programs the designated FST site Configuration Manager has approval authority for Class II Engineering Changes (contractor and organic). As the designated approval activity, the site CM will mark Block 27b and complete Blocks 27d, 27e, and 27f

3.1.27.3 Block 27c. CLASS II Concur/Do not Concur
The DCMC reviews ECPs for the correct classification and either concurs with the classification, or does not concur. The DCMC concurs or non-concurs in the classification of Class II engineering changes by marking Block 27c accordingly and by completing Block 27d, 27e and 27f.

3.1.27.4 Block 27d. Government Activity
For Class I ECPs, Block 27d is used by the CAO for recommending approval or disapproval of the ECP. For Class II ECPs, this block is used by the CAO for classification concurrence.

3.1.27.5 Block 27e. Signature
For Class I ECPs, Block 27e is used by the CAO for recommending approval or disapproval of the ECP. For Class II ECPs, this block is used by the CAO for classification concurrence.

3.1.27.6 Block 27f. Date
For Class I ECPs, Block 27f is used by the CAO for recommending approval or disapproval of the ECP. For Class II ECPs, this block is used by the CAO for classification concurrence.

3.1.27.7 Block 27g. Approved/Disapproved
For Class I ECPs, (contractor and organic) Block 27g is used by the Program Office to indicate ECP approval or disapproval. For Class II ECPs, this block is used by the PMA-260 CM with the authority delegated to him by the Program Office.

3.1.27.8 Block 27h. Government Activity
Enter the name of the designated approval activity in this block. (PMA-260 for Class I ECPs and PMA-260 CM for Class II ECPs)

3.1.27.9 Block 27i. Signature
The signature of the designated approval activity goes in this block. (PMA-260 for Class I ECPs and PMA-260 CM for Class II ECPs)

3.1.27.10 Block 27j. Date Signed
Enter the date of the approval signature in YY/MM/DD format in this block.

3.2 ENGINEERING CHANGE PROPOSAL (ECP) Page 2

The information for these blocks is to be completed only if the proposed change affects the system specification or the item development specification(s).

ENGINEEERING CHANGE PROPOSAL (ECP),	*Form Approved OMV No. 0704-0188*
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information and Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paper work Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURRING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE COMPLETED DD FORM 1692	ECP NUMBER
EFFECTS ON FUNCTIONAL / ALLOCATED CONFIGURATION DOCUMENTATION	
28. OTHER SYSTEMS AFFECTED	29. OTHER CONTRACTORS/ACTIVITIES AFFECTED

3.2.1 Heading. ECP Number
Enter the same ECP number as in Block 8d of ECP Page 1. If the ECP number is assigned on the basis of the system, the system designation also shall be given.

3.2.2 Block 28. Other Systems Affected
Insert data when Block 10 of ECP Form Page 1 is checked "Yes".

3.2.3 Block 29. Other Contractors/Activities Affected
Identify the other contractors or Government activities, which will be affected by this engineering change.

3.2.4 Block 30. Configuration Items Affected
Enter the names and numbers of all CIs, maintenance and operator training equipment, and support equipment affected.

30. CONFIGURATION ITEMS AFFECTED

3.2.5 Block 31. Effects on Performance Allocations and Interfaces in System Specification
Describe the changes in performance allocations and in the functional/physical interfaces defined in the system specification.

31. EFFECTS ON PERFORMANCE ALLOCATIONS AND INTERFACES IN SYSTEM SPECIFICATION

3.2.6 Block 32. Effects on Employment, Integrated Logistic Support, Training, Operational Effectiveness, or Software

32. EFFECTS ON EMPLOYMENT, INTEGRATED LOGISTICS SUPPORT, TRAINING, OPERATIONAL EFFECTIVENESS OR SOFTWARE

3.2.6.1 For Hardware
Describe the effects of the proposed change on employment, deployment, logistics, and/or personnel and any training requirements which have been specified in the approved system and/or configuration item specifications, including any changes or effects on the operability of the system. In particular, an entry detailing any effect on inter-operability will be included.

3.2.6.2 For CSCIs
Enter the following information as applicable to the degree of design development of the CSCI at the time of ECP submission:

- Identify any required changes to the database parameters or values, or to database management procedures
- Identify and explain any anticipated effects of the proposed change on acceptable computer operating time and cycle-time utilization
- Provide an estimate of the net effect on computer software storage
- Identify and explain any other relevant impact of the proposed change on utilization of the system

3.2.7 Block 33. Effects on Configuration Item Specifications
The effect of the proposed change on performance shall be described in quantitative terms as it relates to the parameters contained in the Configuration Item Development Specifications.

33. EFFECTS ON CONFIGURATION ITEM SPECIFICATIONS

3.2.8 Block 34. Developmental Requirements and Status
When the proposed change requires a major revision of the development program (e.g. new prototypes, additional design review activity, tests to be accomplished), the nature of the new development program shall be described in detail, including the status of programs already begun.

34. DEVELOPMENTAL REQUIREMENTS AND STATUS

3.2.9 Block 35. Trade-Offs and Alternative Solutions
Include an analysis showing the reasons for adopting the solution proposed by the ECP with a summary of the various solutions considered.

35. TRADE-OFFS AND ALTERNATIVE SOLUTIONS

3.2.10 Block 36. Date by Which Contractual Authority is Needed
The contractor will enter the date contractual authority will be required in order to maintain the established schedule in YYMMDD format in this block.

This block is not applicable to organic ECPs unless the approval of the ECP will lead to contracting out the change.

36. DATE BY WHICH CONTRACTURAL AUTHORITY IS NEEDED *(YYMMDD)*

DD Form 1692/1, APR 92 ***Previous editions are obsolete.***

3.3 ENGINEERING CHANGE PROPOSAL (ECP) PAGE 3
Certain information required on this page may have been required on ECP Pages 1 and 2. When this information has already been supplied, a cross-reference to such information will be adequate. If any specific logistic inter-operability factors are affected, provide information detailing the possible impact on the operational configuration on an attached page.

3.3.1 ECP Number
Enter the same ECP number as in Block 8d of ECP Form Page 1.

ENGINEEERING CHANGE PROPOSAL (ECP),	***Form Approved OMV No. 0704-0188***
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information and Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paper work Reduction Project (0704-0188), Washington, DC 20503.	
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURRING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE COMPLETED DD FORM 1692.	**ECP NUMBER**
EFFECTS ON PRODUCT CONFIGURATION DOCUMENTATION, LOGISTICS AND OPERATIONS	

3.3.2 Block 37. Effect on Product Configuration Documentation or Contract
Describe the effects on the approved CI product specifications by reference to the SCNs, Alteration Notices (AN) or other enclosure(s) which cover such proposed text changes in detail. Index the effects on performance, weight, moment, etc., which are covered in the enclosure(s), by proper identification adjacent to the factor affected. Describe, in general terms, the effects on drawings, when not completely covered on Page 1, by means of a referenced enclosure. Such enclosure may consist of a list of enclosed NORs. Address nomenclature change when applicable.

(X)	FACTOR	ENCL.	PAR.	
	37. EFFECT ON PRODUCT CONFIGURATION DOCUMENTATION OR CONTRACT			
	a. PERFORMANCE			
	b. WEIGHT-BALANCE-STABILITY *(Aircraft)*			
	c. WEIGHT-MOMENT *(Other equipment)*			
	d. CDRL, TECHNICAL DATA			
	e. NOMENCLATURE			

3.3.3 Block 38. Effect on Integrated Logistics Support Elements
Indicate the effects of the engineering change on logistic support of the item by checking the appropriate boxes. Explain these effects in detail on an enclosure indexed by appropriate identification adjacent to the subject under discussion. The information required shall indicate the method to be used to determine the integrated logistic support plans and items which will be required for the support of the new configuration as well as retrofitting previously delivered items to the same configuration. The following will be covered as applicable:

	38. EFFECT ON INTEGRATED LOGISTICS SUPPORT (ILS) ELEMENTS			
	a. ILS PLANS			
	b. MAINTENANCE CONCEPT, PLANS, AND PROCEDURES			
	c. LOGISTICS SUPPORT ANALYSES			
	d. INTERIM SUPPORT PROGRAMS			
	e. SPARES AND REPAIR PARTS			
	f. TECH MANUALS/PROGRAMMING TAPES			
	g. FACILITIES			
	h. SUPPORT EQUIPMENT			
	i. OPERATOR TRAINING			
	J. OPERATOR TRAINING EQUIPMENT			
	k. MAINTENANCE TRAINING			
	l. MAINTENANCE TRAINING EQUIPMENT			
	m. CONTRACT MAINTENANCE			
	n. PACKAGING, HANDLING, STORAGE, TRANSPORTABILITY			

3.3.3.1 Block 38a. Effects on schedule and content of the ILS plan.

3.3.3.2 Block 38b. Effect on maintenance concept and plans for the levels of maintenance and procedures.

3.3.3.3 Block 38c. System and/or CI logistics support analysis (LSA) tasks to be accomplished and LSA data requiring update wherever it exists in the contract.

3.3.3.4 Block 38d. Extension/revision of the interim support plan.

3.3.3.5 Block 38e. Spares and repair parts that are changed, modified, obsoleted or added, including detailed supply data for interim support spares.

NOTE: Failure to include detailed supply data will delay ECP processing.

3.3.3.6 Block 38f. Revised or new technical manuals.

3.3.3.7 Block 38g. Revised or new facilities requirements and site activation plan.

3.3.3.8 Block 38h. New, revised, obsolete or additional support equipment (SE), test procedures and software. For items of SE and trainers which require change, furnish a cross reference to the related ECPs, and for any related ECP not furnished with the basic ECP, furnish a brief description of the proposed change(s) in SE and trainers.

3.3.3.9 Block 38i. Qualitative and quantitative personnel requirements data which identify additions or deletions to operator or maintenance manpower in terms of personnel skill levels, knowledge and numbers required to support the CI as modified by the change.

3.3.3.10 Block 38j. New operator and maintenance training requirements in terms of training equipment, trainers and training software for operator and maintenance courses. This information should include identification of specific courses, equipment, technical manuals, personnel, etc., required to set up the course at a Government facility.

3.3.3.11 Block 38k. See paragraph 38i above for instructions.

3.3.3.12 Block 38l. See paragraph 38j above for instructions.

3.3.3.13 Block 38m. Any affect on contract maintenance that increases the scope or dollar limitation established in the contract.

3.3.3.14 Block 38n. Effects on packaging, handling, storage, and transportability resulting from changes in materials, dimensions, fragility, inherent environmental or operating conditions.

3.3.4 Block 39. Effect on Operational Employment
Indicate any effects of the engineering change on the CI by checking the appropriate factors and providing details by enclosures. Use quantitative values when reliability and service life are impacted. Survivability includes nuclear survivability.

				(X)	FACTOR	ENCL	PAR.
					39. EFFECT ON OPERATIONAL EMPLOYMENT		
					a. SAFETY		
					b. SURVIVABILITY		
					c. RELIABILITY		
					d. MAINTAINABILITY		
					e. SERVICE LIFE		
					f. OPERATING PROCEDURES		
					g. ELECTROMAGNETIC INTERFERENCE		
					h. ACTIVATION SCHEDULE		
					i. CRITICAL SINGLE POINT FAILURE ITEMS		
					j. INTEROPERABILITY		

3.3.5 Block 40. Other Considerations
Identify the effects of the proposed engineering change on the following in an enclosure indexed by appropriate identification adjacent to the factor affected:

					40. OTHER CONSIDERATIONS		
					a. INTERFACE		
					b. OTHER AFFECTED EQUIPMENT/GFE/GFP		
					c. PHYSICAL CONSTRAINTS		
					d. COMPUTER PROGRAMS AND RESOURCES		
					e. REWORK OF OTHER EQUIPMENT		
					f. SYSTEM TEST PROCEDURES		
					g. WARRANTY/GUARANTEE		
					h. PARTS CONTROL		
					i. LIFE CYCLE COSTS		

3.3.5.1 Block 40a. Interfaces having an effect on adjacent or related items, (output, input, size, mating connections, etc.).

3.3.5.2 Block 40b. Other GFE or Government Furnished Data (GFD) changed, modified or made obsolete as a result of this change.

3.3.5.3 Block 40c. Physical constraints. Removal or repositioning of items, structural rework, increase or decrease in overall dimensions.

3.3.5.4 Block 40d. Software (other than operational, maintenance, and training software) requiring a change to existing code and/or, resources or addition of new software.

3.3.5.5 Block 40e. Rework required on other equipment, not included previously, which will effect the existing operational configuration.

3.3.5.6 Block 40f. Additional or modified system test procedures required.

3.3.5.7 Block 40g. Any new or additional changes having an effect on existing warranties or guarantees.

3.3.5.8 Block 40i. Effects on life cycle cost projections for the configuration item or program, including projections of operation and support costs/savings for the item(s) affected over the contractually defined life and projections of the costs/savings to be realized in planned future production and spares buys of the item(s) affected.

3.3.6 Block 41. Alternate Solutions

Include a summary of the various alternative solutions considered, including the use of revised operation or maintenance procedures, revised inspection or servicing requirements, revised part replacement schedules, etc. Provide an analysis of the alternatives, identify the advantages and disadvantages inherent in each feasible alternative approach, and show the reasons for adopting the alternative solution proposed by the ECP. When the analysis addresses new concepts or new technology, supporting data (to include LSA if contractually required) should be presented with the proposal to authenticate the trade-off analysis.

41. ALTERNATE SOLUTIONS

3.3.7 Block 42. Developmental Status

When applicable, the contractor shall make recommendations as to the additional tests, trials, installations, prototypes, fit checks, etc., which will be required to substantiate the proposed engineering change. These recommendations shall include the test objective and test vehicle(s) to be used. The contractor shall indicate, where applicable, the development status of the major items of GFE to be used in conjunction with the change and the availability of the equipment in terms of the estimated production incorporation point.

NOTE: This is a contractor section and not applicable to organic ECPs.

42. DEVELOPMENTAL STATUS

3.3.8 Block 43. Recommendations for Retrofit

When applicable, make recommendations for the retrofit of the engineering changes into accepted items with substantiating data, any implications thereto, and a brief description of the action required. Where retrofit is not recommended, an explanation of this determination shall be provided. Reference shall be made to any enclosure required to state recommended retrofit effectivity (See Block 23a).

43. RECOMMENDATIONS FOR RETROFIT

3.3.9 Block 44. Work-Hours per Unit to Install Retrofit Kits

Complete Blocks 44a through 44d to show the amount of work, which must be programmed for various activities to install, retrofit kits. Estimate work-hours to install retrofit kits when weapon system is undergoing overhaul.

3.3.9.1 Block 44a. Organization
Enter the number of hours that will be required for the retrofit at the organizational level. If no time is required, enter N/A.

3.3.9.2 Block 44b. Intermediate
Enter the number of hours that will be required for the retrofit at the intermediate level. If no time is required, enter N/A.

44. WORK-HOURS PER UNIT TO INSTALL RETROFIT KITS				45. WORK-HOURS TO CONDUCT SYSTEM TESTS AFTER RETROFIT
a. ORGANIZATION	b. INTERMEDIATE	c. DEPOT	d. OTHER	

3.3.9.3 Block 44c. Depot
Enter the number of hours that will be required for the retrofit at the depot level. If no time is required, enter N/A.

3.3.9.4 Block 44d. Other
Enter the number of hours that will be required for the retrofit at the any other level. If no time is required, enter N/A.

3.3.10 Block 45. Work-Hours to Conduct System Tests After Retrofit
Enter the work-hours required to test the system or the item following installation of the retrofit kit.

3.3.11 Block 46. This Change Must be Accomplished
Where previously approved engineering changes must be incorporated in a specific order in relation to the proposed change, specify the order in which the incorporations are to be performed. Use enclosure to provide amplifying information.

46. THIS CHANGE MUST BE			47. IS CONTRACTOR FIELD SERVICE ENGINEERING REQUIRED		48. OUT OF SERVICE TIME
☐ BEFORE	☐ WITH	☐ AFTER THE FOLLOWING CHANGES	☐ YES	☐ NO	

3.3.12 Block 47. Is Contractor Field Service Engineering Required
Check applicable box. If "Yes" attach proposed program for contractor participation.

3.3.13 Block 48. Out of Service Time
Estimate the total time period from removal of the equipment from operational service until equipment will be returned to operational status after being retrofitted and tested.

3.3.14 Block 49. Effect of this ECP and Previously Approved ECPs on Item
Summarize the cumulative effect upon performance, weight, electrical load, etc., of this ECP and previously approved ECPs when design limitations are being approached or exceeded. Consequences of ECP disapproval may be stated in this block or in a referenced enclosure.

49. EFFECT OF THIS ECP AND PREVIOUSLY APPROVED ECP'S ON ITEM	50. DATE CONTRACTUAL AUTHORITY NEEDED FOR *(YYMMDD)*
	a. PRODUCTION
	b. RETROFIT

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3.3.15 Block 50. Date Contractual Authority Needed
Enter an estimated date by which implementation must begin to maintain the estimated effectiveness specified in the ECP and to provide concurrent ILS and logistics support item

deliveries. The contractor should consider the targets for decision allowing additional time for review, mailing, and other incidental handling and processing requirements.

3.4 ECP PAGE 4, ESTIMATED NET TOTAL COST IMPACT

ECP Page 4 is intended as the summary of the estimated net total cost/savings impact of a single ECP. In Blocks 51a through d, each cost factor associated with the ECP is be considered as to whether such cost or portion thereof is recurring or non-recurring.

Enter cost/savings in columns (a) through (d), as applicable, using entries in the "unit" and "quantity" columns when appropriate. Savings are enclosed with parentheses.

Other costs/savings to the Government resulting from approval of this ECP shall be entered in column (f) to the extent these costs can be determined. This estimate of cost impact will be used for planning purposes and for a cost reduction or VECP analysis as to the net saving that would result.

Firm cost proposals shall be submitted on standard form (SF) 1411, together with the appropriate cost breakdown.

If an ECP affects items being delivered to more than one service, a separate ECP Form Page 4 shall be filled out for the quantities to be delivered to each service. Unless otherwise prescribed, costs of special tooling, scrap, redesign, etc. shall be divided between the using services on the basis of the percent of items furnished to each.

The cost analysis applicable to each service shall be appropriately labeled at the top of the form.

3.4.1 ECP Number.
Enter the same ECP number as in Block 8d of ECP Form Page 1. If the number is assigned by system, include system designation.

ENGINEEERING CHANGE PROPOSAL (ECP),	***Form Approved OMV No. 0704-0188***
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51. ESTIMATED NET TOTAL COST IMPACT (Use parenthesis)	

3.4.2 Block 51. Estimated Net Total Cost/Impact (Savings Summary, Related ECPs)

3.4.2.1 Block 51a. Production Costs/Savings
Enter the estimate of costs/savings applicable to production of the CI resulting from incorporation of the change. Show redesign costs for the CI in the block titled "engineering, engineering data revision" (row 5) when the item is in production. Enter the projected life cycle costs/savings applicable to the planned production spares buys of the item that are not yet on contract on the CONFIGURATION ITEM/CSCI (row 1) line in column (f). Enter the subtotal of production costs (both non-recurring and recurring) in the fifth column (e).

51. ESTIMATED NET TOTAL COST IMPACT (Use parentheses for savings)						
FACTOR	COSTS/SAVINGS UNDER CONTRACT					Other Costs/ Savings to the Government (f)
	Non-Recurring (a)	Unit (b)	Quantity (c)	Total (Recurring) (e)	Total (e)	
a. PRODUCTION COSTS/SAVINGS						
(1) CONFIGURATION ITEM / CSCI						
(2) FACTORY TEST EQUIPMENT						
(3) SPECIAL FACTORY TOOLINGS						
(4) SCRAP						
(5) ENGINEERING, ENGINEERING DATA REVISION						
(6) REVISION OF TEST PROCEDURES						
(7) QUALIFICATIONS OF NEW ITEMS						
(8) SUBTOTAL OF PROD COSTS / SAVINGS						

3.4.2.2 Block 51b. Retrofit Costs

Enter the estimate of costs applicable to retrofit of the item, including installation and testing costs. When Government personnel accomplish, or are involved in, the installation and/or testing activities, the estimate costs shall be entered in column (f) on the affected lines. Show design costs of the retrofit kit and data revision costs strictly related to retrofit when the CI is in production; show all redesign and data revision costs when the item is not in production. Costs of modifications required to existing GFE (row 10) and subsequent testing (row 11) also shall be shown. Enter the subtotal of retrofit costs in the fifth column.

If some or all of the retrofit activities and costs will have to be deferred and placed on contract at a future date, show that deferred and placed on contract at a future date, show that deferred portion of the cost applicable to each line of Block 51b in column (f).

b. RETROFIT COSTS						
(1) ENGINEERING DATA REVISION						
(2) PROTOTYPE TESTING						
(3) KIT PROOF TESTING						
(4) RETROFIT KITS FOR OPERATIONAL SYSTEMS						
(5) PREP. OF MWO / TCTO / SC / ALT / TD						
(6) SPECIAL TOOLING FOR RETROFIT						
(7) INSTALLATION - CONTRACTOR PERSONNEL						
(8) INSTALLATION - GOVERNMENT PERSONNEL						
(9) TESTING AFTER RETROFIT						
(10) MODIFICATION OF GFE - GFP						
(11) QUALIFICATION OF GFE - GFP						
(12) SUBTOTAL OF RETROFIT COSTS / SAVINGS						

3.4.2.3 Block 51c. Integrated Logistic Support Costs/Savings

Enter the estimated cost of the various elements of ILS applicable to the item covered by the ECP. On the line titled "interim support (row 11)," enter estimated costs based upon the period of time between initial installation/operation of the item (aircraft, tank, etc.) as modified by the ECP and Government attainment of support capability. Such "interim support" costs shall include costs estimates of recommended/provided spares and repair parts, special support equipment, training equipment and personnel training program. On the line titled "maintenance manpower" (row 12) enter the estimated costs/savings for any contracted maintenance support for the remainder of existing maintenance contracts.

Other ILS costs/savings associated with ILS elements for which appropriate titles do not appear in Block 51c may be entered in place of a factor not used unless such costs are covered on ECP Form Page 5 or in related ECPs. Enter the subtotal of ILS costs/savings in column (e). Enter the operation and support portion of the life cycle cost/savings on the subtotal line in column (f).

c. INTEGRATED LOGISTICS SUPPORT COSTS / SAVINGS						
(1) SPARES / REPAIR PARTS REWORK						
(2) NEW SPARES AND REPAIR PARTS						
(3) SUPPLY / PROVISIONING DATA						
(4) SUPPORT EQUIPMENT						
(5) RETROFIT KITS FOR SPARES						
(6) OPERATOR TRAINING COURSES						
(7) MAINTENANCE TRAINING COURSES						
(8) REVISION OF TECHNICAL MANUALS						
(9) NEW TECH MANUALS						
(10) TRAINING / TRAINERS						
(11) INTERIM SUPPORT						
(12) MAINTENANCE MANPOWER						
(13) COMPUTER PROGRAMS / DOCUMENTATION						
(14) SUBTOTAL OF ILS COSTS / SAVINGS						

3.4.4.4 Block 51d. Other Costs/Savings

If there are other costs which do not fall under the production, retrofit or ILS headings, enter the total of such costs in Block 51d, column (e). If there are other costs to the Government which do not fall under the production, retrofit or ILS headings or under Block 51g, "coordination changes by Government", enter the total of such costs in Block 51d, column (f). An example of this is the AIR 6.8.5 CM/Logistic fee.

d. OTHER COSTS / SAVINGS						
(1) SUBTOTAL UNDER CONTRACT						

3.4.4.5 Block 51e. Subtotal Costs/Savings

Enter the subtotals of columns (a), (d), (e), and (f) on this line. The subtotal in column (e) shall be the sum of each row in columns (a) and (d). This subtotal under the contract then shall be entered on the line so titled in column (f) and on ECP Form Page 1, Block 24.

e. SUBTOTAL COSTS / SAVINGS						
(1) SUBTOTAL UNDER CONTRACT						

3.4.4.6 Block 51f. Coordination of Changes with Other Contractors

This term applies to interface changes to items other than GFE, and changes to GFE being covered under 51b. If such coordination changes are covered by related ECPs and summarized on ECP Form Page 5, the estimated costs thereof shall not be entered in Block 51f. However, if Page 5 is not required, or if costs of certain coordination changes are not tabulated on Page 5, an estimate of such costs shall be entered in Block 51f, when available.

f. COORDINATION OF CHANGES WITH OTHER CONTRACTORS					

3.4.4.7 Block 51g. Coordination Changes by Government

Enter an estimate of the cost to the Government of interface changes which must be accomplished in delivered items (aircraft, ships, facilities, etc.) to the extent such costs are not covered in Block 51b or on ECP Form Page 5.

g. COORDINATION CHANGES BY GOVERNMENT					

3.4.4.8 Block 51h. Estimated Net Total Costs/Savings

Enter the sum of all cost savings on column (f) and on ECP Form Page 1, Block 25.

h. ESTIMATED NET TOTAL COSTS / SAVINGS					

DD Form 1692/3, APR 92 ***Previous editions are obsolete.***

3.5 ECP PAGE 5, ESTIMATED COSTS/SAVINGS SUMMARY, RELATED ECPs
Block 52 is intended to be the summary of the estimated net total cost impact of both the package of related ECPs and other associated new requirements which are needed to support the modified items.

A few revised requirements for ILS, such as ILS plans and maintenance concepts do not appear as headings in Block 51. When only a single ECP is involved, these additional costs for revision of ILS plans, etc. should be shown in Block 51 under the ILS heading, and Block 52 may be omitted.

3.5.1 Responsibility for Preparation:

- Prime Contractor The prime contractor shall summarize the costs/savings of all related ECPs for which the contractor is responsible, in Block 52. If there is no system integrating contractor, the prime contractor submitting the basic ECP shall include the costs of related ECPs being submitted by other affected contractors to the extent such information is available.

- System Integrating Contractor When a system integrating contractor (or coordinating contractor) has contractual responsibility for ECP coordination, the contractor shall summarize the costs of related ECPs of the several primes involved in an interface or interrelated ECP in Block 52 and shall attach it to the ECP package.

- Summarization Techniques The costs of certain related ECPs are entirely ILS costs. Thus costs of ECPs for trainers, other training equipment and SE, shall be listed in total under the ILS costs: heading Other ECPs (Applicable to weapons, aircraft, tanks, subsystems thereof, etc.) shall be split into the four subtotals of "production," "retrofit," "ILS," and “other costs” for entry in Block 52, column (c).

  The sum of the four subtotals attributed in Block 52, column (c), to an individual ECP should agree with the subtotal of costs/ savings under contract, line e, column (e) of Block 51 of that ECP. Cost breakdowns should be arranged in such manner that costs/savings are neither included more than once on the summary nor omitted. The purpose of the grouping on the cost summary is to arrive at a total ILS cost, and a net total cost of all actions for the complete group of related ECPs.

3.5.2 ECP Number
Enter the same ECP number as in Block 8d of ECP Page 1. If the number is assigned by system, include system designation.

ENGINEEERING CHANGE PROPOSAL (ECP),	***Form Approved OMV No. 0704-0188***
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52. ESTIMATED COSTS / SAVINGS SUMMARY, RELATED ECP'S *(Use parentheses for savings)*	

3.5.3 Block 52a. Production Costs / Savings

3.5.3.1 Column (a) Enter the CAGE Code

3.5.3.2 Column (b) Enter the ECP number

3.5.3.3 Column (c) / (d) Enter the Production Subtotals from Block 51a, Columns (e) and (f) of each applicable ECP.

NOTE: The total costs of ECPs on trainers, training equipment, and SE are entered in Block 52c.

52. ESTIMATED COSTS / SAVINGS SUMMARY, RELATED ECP'S *(Use parentheses for savings)*				
	CAGE CODE (a)	ECP NUMBER (b)	COSTS / SAVINGS UNDER CONTRACT (c)	OTHER COSTS / SAVINGS TO GOVERNMENT (d)
a. PRODUCTION COSTS / SAVINGS (Subtotal of Costs / Savings Elements from Page 4, Item 4.a., applicable to aircraft, ship, tank, vehicle, missile or its subsystem.				
(1) SUBTOTAL PRODUCTION COSTS / SAVINGS				
b. RETROFIT COSTS (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)				
(1) SUBTOTAL RETROFIT COSTS				

3.5.3.4 Block 52b. Retrofit Costs

Retrofit costs may be charged by the Government to production funds or maintenance funds or may be split between the two. The type of funds used depends upon the phase of the items' life cycle. If the practice of the Government in this regard is known to the originator of Page 5, retrofit costs shall be entered in, or split between Blocks 52b and 52.c.1, as appropriate. If such practice is unknown, enter in block 52b the ECP number and the retrofit subtotals from the columns (e) and (f) of Block 51b for each applicable ECP.

3.5.3.5 Block 52c. ILS Costs/Savings

3.5.3.4.1 Block 52c. (1) Enter the retrofit costs if appropriate.

3.5.3.4.2 Block 52c (2) Enter the ILS subtotals from columns (e) and (f) of Block 51c of each ECP applicable to the station.

As stated in Section 3.4.2.3, enter costs of ECPs for ILS items in Blocks 52.c.3, 4, 5, and 6. Enter costs of revision or preparation of ILS plans and LSA records for the configuration item or complete system in Block 52.c.7. Enter in Block 52.c.9 the costs of revision of the interim support plan to the extent such costs have not already been covered under Block 51c of ECP Page 4 of the applicable ECPs. Enter in Blocks 52.c.10 through 52.c.18 the costs of all new requirements for ILS not covered by ECPs, such costs being broken down into non-recurring and recurring costs, as appropriate, and totaled in column (c).

c. INTEGRATED LOGISTICS SUPPORT COSTS / SAVINGS REVISED REQUIREMENTS							
(1) ITEM RETROFIT (If not covered under "b") (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)							
(2) ILS SUBTOTAL (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)							
(3) OPERATOR TRAINER (Net total cost / saving from each ECP covering operator trainer)							
(4) MAINTENANCE TRAINER (Net total cost / saving from each ECP covering maintenance trainer)							
(5) OTHER TRAINING EQUIPMENT							
(6) SUPPORT EQUIPMENT (Net total cost / saving from each ECP covering support equipment)							
(7) ILS PLANS							
(8) MAINTENANCE CONCEPT, PLANS, SYSTEM DOCUMENTS							
NEW REQUIREMENTS	CAGE CODE		RECURRING COSTS				
			UNIT	QTY	TOTAL		
(10) PROVISIONING DOCUMENTATION							
(11) OPER TRNR / TRNG DEVICES / EQUIP							
(12) MANUALS / SPARES, REPAIR PARTS *(For (11))*							
(13) MAINTENANCE TRNR /TRNG DEVICES / EQUIPMENT							
(14) MANUALS, SPARES, REPAIR PARTS *(For 13))*							
(15) SUPPORT EQUIPMENT							
(16) MANUALS *(For (15))*							
(17) PROVISIONING DOCUMENTATION *(For (15))*							
(18) REPAIR PARTS *(For (15))*							
(19) SUBTOTAL ILS COSTS / SAVINGS (Sum of c(1) through c(18)							

3.5.3.4.3 Block 52d. Other Costs/Savings
Enter Block 52d the sum of the "other costs" totals from columns (e) and (f) of Block 51d of each ECP applicable to the CASS station. Enter subtotals of columns (c) and (d) on this line. The subtotal under contract(s) shall then be entered on the line so titled in column (d).

d. OTHER COSTS / SAVINGS (*Total from Page 4, Item 4.d, or related ECPs)*	CAGE CODE	ECP NUMBER		
(1) TOTAL OTHER COSTS / SAVINGS				
(2) SUBTOTAL OF COLUMNS				
(3) SUBTOTAL UNDER CONTRACT				
e. ESTIMATED NET TOTAL COSTS / SAVINGS *(a - b - c - d)*				

DD Form 1692/4, APR 92 ***Previous editions are obsolete.***

3.5.3.4.4 Block 52e. Estimated Net Total Costs/Savings
Enter the sum of the preceding two lines of column (d).

3.6 ECP PAGE 6, ENGINEERING CHANGE PROPOSAL (HARDWARE)
If the ECP impacts both software and hardware, both Pages 6 and 7 or their equivalent shall be included, as appropriate.

NOTE: Due to the complexity and difficulty of completing the standard formats for pages 6 and 7, the submitting activity is encouraged to include all the data elements contained herein and submit schedules in MS Project (or similar) format. Any additional pertinent information to accomplish this change should also be included.

3.6.1 ECP Number
Enter the same ECP number as in Block 8d of ECP Page 1. If the number is assigned by system, include system designation.

ENGINEERING CHANGE PROPOSAL (ECP) (HARDWARE), PAGE 6	*Form Approved OMV No. 0704-0188*
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 222-2-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE COMPLETED DD FORM 1692.	ECP NUMBER 53. CAGE CODE
54. CONFIGURATION ITEM NOMENCLATURE	55. TITLE OF CHANGE

3.6.2 Block 53. CAGE Code
Enter the CAGE code for the activity originating the ECP.

3.6.3 Block 54. Configuration Item Nomenclature
Enter the information from ECP Page 1, Block 16.

3.6.4 Block 55. Title of Change
Enter information from ECP Page 1, Block 13.

3.6.5 Block 56. Milestone Chart
The milestones chart included with the ECP package is antiquated and not user friendly. It is recommended that this milestone chart not be used. Rather, develop a milestone chart using

commercial planning software (e.g. MS Project) as page 6A and reference it on required page 6. On the milestone chart, show the time phasing of the various deliveries of items, support equipment, training equipment, and documentation incorporating the basic and related ECPs. Enter other symbols and notations to show the initiation or termination of significant actions.

3.7 ECP PAGE 7, ENGINEERING CHANGE PROPOSAL (SOFTWARE)
If the ECP impacts both software and hardware, both Page 6 and Page 7, or their equivalent shall be used, as appropriate.

NOTE: Due to the complexity and difficulty of completing the standard formats for pages 6 and 7, the submitting activity is encouraged to include all the data elements contained herein and submit schedules in MS Project (or similar) format. Any additional pertinent information to accomplish this change should also be included.

3.7.1 ECP Number
Enter the same ECP number as in Block 8d of ECP Page 1. If the number is assigned by system, include system designation.

ENGINEERING CHANGE PROPOSAL (ECP) (SOFTWARE), PAGE 6		***Form Approved OMV No. 0704-0188***
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 222-2-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. **PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE COMPLETED DD FORM 1692.**		**ECP NUMBER** **57. CAGE CODE**
58. COMPUTER SOFTWARE ITEM NOMENCLATURE	**55. TITLE OF CHANGE**	

DD Form 1692/5, APR 92 ***Previous editions are obsolete.***

3.7.2 Block 57. CAGE Code
Enter the CAGE code for the activity originating the ECP.

3.7.3 Block 58. Software Nomenclature
Enter the software name and identification number and the number of the CIs affected by the ECP.

3.7.4 Block 59. Title of Change
Enter the information from ECP Page 1, Block 10.

3.7.5 Block 60. Milestone Chart
Enter the symbols (see legend on form), as appropriate for the activity, to show the time phasing of the various deliveries of items, support equipment, training equipment, and documentation incorporating the basic and related ECPs. Enter other symbols and notations to show the initiation or termination of significant actions. All dates are based upon months after contractual approval of the basic ECP.

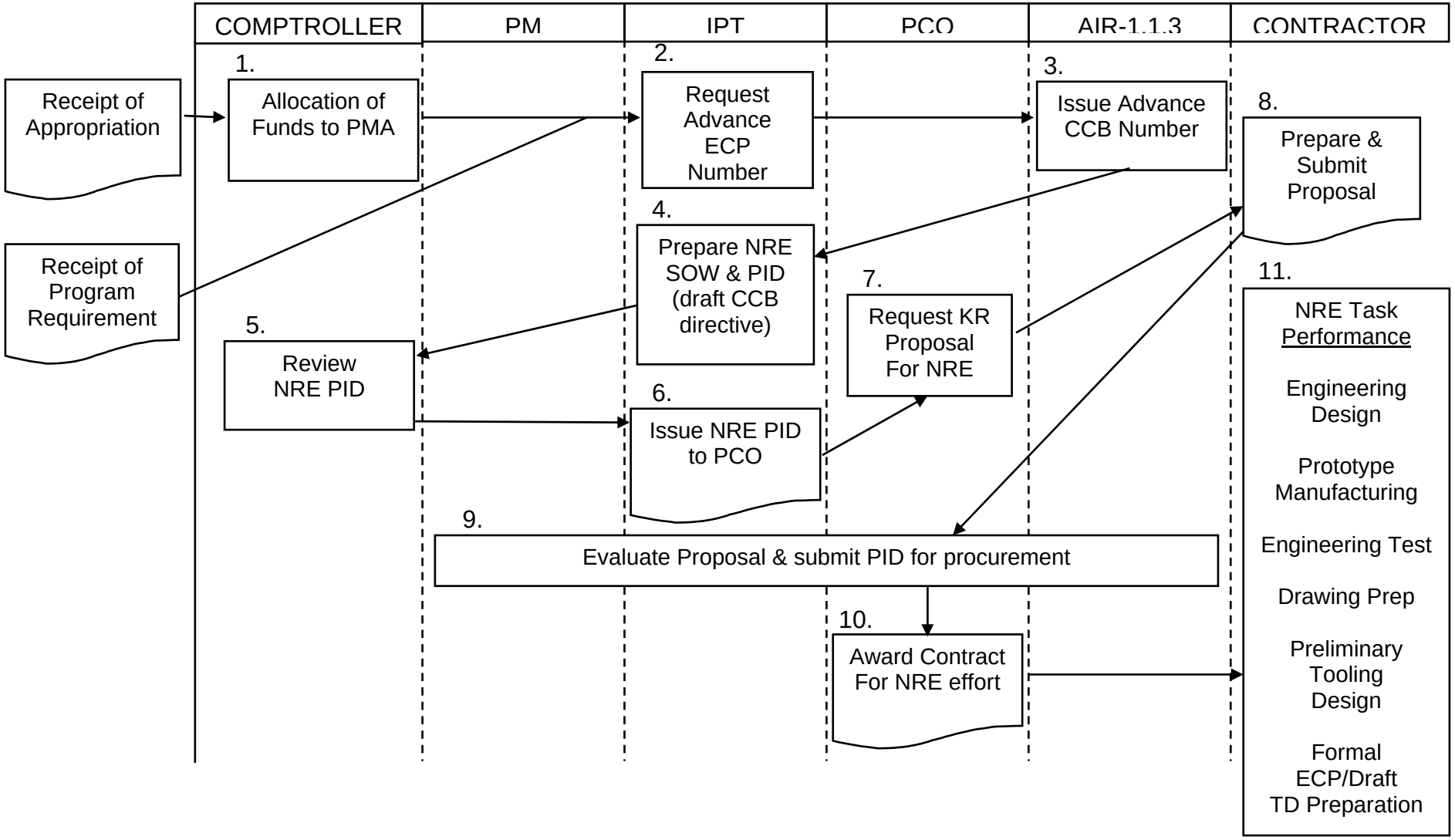
3.7.6 CECP Form Continuation Pages

Continuation pages should have the same heading as previous ECP pages including the ECP number. These pages shall address the block numbers. Note: Do not use the designation; attachment (yy), enclosure ( ), etc. The continuation pages are to be numbered consecutively such as: Page 6 of 8, Page 7 of 8, and Page 8 of 8.

Appendix J

Two-Step ECP Process - PHASE I

(Any steps of the existing process not affected by this process change may not appear in this chart for clarity)



Two-Step ECP Process - PHASE II

(This part of the ECP staffing & approval process is unchanged from the existing process. Any steps of the existing process that may not appear in this chart have been left out for brevity)