

NAVAIRINST 4130.1C  
AIR-1006  
31 Jan 92

NAVAIR INSTRUCTION 4130.1C

From: Commander, Naval Air Systems Command

Subj: NAVAL AIR SYSTEMS COMMAND CONFIGURATION MANAGEMENT POLICY

Ref: (a) SECNAVINST 4130.2  
(b) NAVAIRINST 4275.3F  
(c) NAVAIRINST 5215.10D  
(d) Operating Agreement between the Commander, Naval Air Systems Command and the Naval Aviation Program Executive Officers of 16 Aug 90

1. Purpose. To implement reference (a); establish policy, provide procedures, and assign responsibilities governing configuration management; and provide the necessary guidance for processing Class I engineering change proposals, rapid action minor engineering changes, and requests for major/critical deviation and waivers affecting configuration items managed by the naval aviation program executive officer (PEO) organizations and the Naval Air Systems Command (NAVAIR).

2. Cancellation. This instruction supersedes NAVAIR Instruction 4130.1B of 23 April 1986. Since this is a major revision, changes have not been indicated. Forms NAVAIR 13050/2, 13050/2A, 13050/2B, 13050/2C, 13050/2D, 13051/2, 13051/4, 13051/5, and 13051/7 are hereby cancelled.

3. Scope. The policy and procedures of references (a) through (d) and this manual will apply to the PEO for Cruise Missiles Project and Unmanned Aerial Vehicle Project (PEO(CU)), PEO for Tactical Aircraft Programs (PEO(T)), PEO for Air Antisubmarine Warfare, Assault, and Special Missions Programs (PEO(A)), Naval Air Systems Command Headquarters (NAVAIRHQ), and supporting field activities.

4. Policy

a. With the exception of compatibility changes as described in reference (b), Class I engineering changes and major or critical deviations and waivers will not be implemented prior to Change Control Board approval.

b. Rapid Action Minor Engineering Changes (RAMEC's) are Class I engineering changes and will not be implemented prior to Change Control Board approval.

c. Configuration control requirements are to be included in acquisition documents per reference (b).

31 Jan 92

5. Definition. Configuration management is a discipline involving technical and administrative direction and surveillance for:

a. Identifying and documenting the functional and physical characteristics of a configuration item.

b. Auditing configuration items and their related documentation to verify conformance to specifications, interface control documents, and other contractual requirements.

c. Controlling changes to configuration items and their related documentation.

d. Recording and reporting information which is essential for managing configuration items effectively, including the status of all proposed and approved changes.

6. Responsibility and Authority

a. Program management offices and other offices assigned primary responsibility for system acquisitions are referred to as offices of primary responsibility in this manual. They are responsible for

(1) providing configuration management of assigned configuration items throughout their life cycle;

(2) preparing and maintaining configuration management plans for assigned configuration items: obtaining approval of these plans, and assuring proper implementation of this manual;

(3) managing and providing direction for the staffing of all engineering change proposals, RAMEC's, and requests for major and critical deviations and waivers from initiation until submittal to a Change Control Board:

(4) implementing Change Control Board directed actions;

(5) maintaining the status of implementing actions for approved engineering changes, deviations, and waivers;

(6) conducting audits, establishing baselines; and

(7) establishing and maintaining an adequate - configuration status accounting system.

b. The Configuration Management, Program Policy and Resources Division (AIR-100)

(1) has overall responsibility and authority to enforce - this instruction:

31 Jan 92

(2) has responsibility for governing the operation of all existing Change Control Board for the Command or Naval Air Systems Command:

(3) has the authority to charter subordinate change control boards as appropriate:

(4) has the authority to review and approve office of primary responsibility configuration management plans: and

(5) has the responsibility to keep this instruction current, including issuing minor non-policy related changes.

7. Forms. Applicable configuration management forms referred to in this instruction with stocking information are listed in appendix E.

R.G. Harrison  
Deputy Commander  
Acquisition and Operations

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NAVAIRINST 4130.1C  
31 Jan 92

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31 Jan 92

NAVAL AIR SYSTEMS COMMAND  
Configuration Management Manual  
TABLE OF CONTENTS

TYPE	PAGE
CHAPTER I - GENERAL INFORMATION . . . . .	1-1
Purpose.....	1-1
Application.....	1-1
Configuration Management.....	1-1
Configuration Management Terms and Definitions..	1-1
Configuration Management Related Documents.....	1-1
Life Cycle Configuration Management Requirements.....	1-1
Joint Service Configuration Management.....	1-2
Contractual Requirements/Provisions.....	1-2
Figure 1-1 Life Cycle Configuration Management Overview	1-3
CHAPTER II - CONFIGURATION MANAGEMENT PLANS.....	2-1
Types of Configuration Management Plans.....	2-1
Office of Primary Responsibility Configuration Management Plan.....	2-1
Contractor Configuration Management Plan.....	2-2
Contractual Requirements/Provisions.....	2-2
CHAPTER III - CONFIGURATION IDENTIFICATION.....	3-1
Purpose.....	3-1
Baselines.....	3-1
Configuration Identification.....	3-1
Contractual Requirements/Provisions.....	3-2
Figure 3-1 Functional Configuration Identification Documentation.....	3-3
Figure 3-2 Allocated Configuration Identification Documentation.....	3-3
Figure 3-3 Product Configuration Identification.....	3-3
CHAPTER IV - CONFIGURATION AUDITS.....	4-1
Purpose.....	4-1
Types of Configuration Audits.....	4-1
Guidance for Conducting Audits.....	4-1
Contractual Requirements Provisions.....	4-1
Figure 4-1 Life Cycle Technical Reviews and Configuration Audits.....	4-2

31 Jan 92

CHAPTER V - CONFIGURATION CONTROL.....	5-1
Purpose . . . . .	5-1
Degrees of Configuration Control.....	5-1
Configuration Control Authority.....	5-1
Changes to Configuration Items and Configuration Identification.....	5-1
NAVAIR Change Implementation.....	5-3
Program and PEO/NAVAIR Management Proposals.....	5-3
Retrofit Requirements for Production Changes....	5-3
Methods used for Proposing Changes to a Configuration Item.....	5-3
Engineering Change Proposals.....	5-3
Request for Deviation.....	5-6
Request for Waiver.....	5-7
Rapid Action Minor Engineering Change (RAMEC) Proposal.....	5-7
Changes to Master Government Furnished Equipment Lists . . . . .	5-7
Miscellaneous Requirements for Government Furnished Equipment.....	5-8
Software Changes.....	5-8
NAVAIR Change Control Board.....	5-8
Membership of the NAVAIR Change Control Board....	5-8
Responsibilities of the NAVAIR Change Control Board Members . . . . .	5-10
Exhibit 5-1 Sample Request for Change Control Board Charter.....	5-11
Exhibit 5-2 Sample Configuration Change Control Board Charter.....	5-12
Exhibit 5-3 Sample Request for Engineering Change Proposal.....	5-13
 CHAPTER VI - CHANGE PROCESSING AT NAVAL AIR SYSTEM COMMAND.6-1	
Purpose.....	6-1
Application.....	6-1
Responsibility.....	6-1
Processing Steps.....	6-1
STEP 1. Change Entry into MODMIS.....	6-1
STEP 2. Forwarding of Proposal Changes.....	6-1
STEP 3. Change Proposal valuation and Planning Conference.....	6-1
STEP 4. Decision Memorandum.....	6-3
STEP 5. Preparation and Assembly of Change Control Board Package.....	6-3
STEP 6. Matrix Staffing and Processing.....	6-4
AIR-02.....	6-5
AIR-1003.....	6-5
AIR-08P.....	6-5
AIR-04.....	6-6
AIR-05.....	6-6
PMA205.....	6-6

STEP 7.	Change Control Board Scheduling . . . . .	6-6
STEP 8.	Change Control Board Meeting . . . . .	6-7
STEP 9.	Change Control Board Approval . . . . .	6-7
STEP 10.	Special Change Approval . . . . .	6-7
	Hand Carry Authorization and	
	Approval . . . . .	6-7
	Interim Changes . . . . .	6-8
	Follow-On Buys . . . . .	6-8
	Administrative Changes . . . . .	6-9
	Safety Related Engineering Change	
	Proposals . . . . .	6-9
STEP 11.	Change Implementation . . . . .	6-9
STEP 12.	Change Cancellation . . . . .	6-10
Exhibit 6-1	Sample Engineering Change Proposal Rejection	
	Letter . . . . .	6-11
Exhibit 6-2	Sample Request for Revision or Amendment to	
	an Engineering Change Proposal . . . . .	6-12
Exhibit 6-3	Sample Decision Memorandum . . . . .	6-13
Exhibit 6-4	Forms Required for the Preparation of CCB	
	Change Packages . . . . .	6-16
Exhibit 6-5	CCB Change Request/Directive (NAVAIR 4130/1)	6-17
Exhibit 6-6	Cost and Funding Summary (NAVAIR 4130/2) . .	6-24
Exhibit 6-7	Milestone Chart (NAVAIR 4130/3) . . . . .	6-45
Exhibit 6-8	Implementing Instructions CCB Change	
	Directive Implementation (NAVAIR 4130/4) .	6-50
Exhibit 6-9	CCB Change Request/Supplement (Government	
	Furnished Equipment Requirements (FY_____)	
	(NAVAIR 4130/5) . . . . .	6-53
Exhibit 6-10	Master Government Furnished Equipment List	
	(MGFEL) Change (NAVAIR 4130/6) . . . . .	6-56
Exhibit 6-11	Support Equipment Requirements Form NAVAIR	
	4130/7) . . . . .	6-59
Exhibit 6-12	CCB Change Request/Directive AIR-07 Staffing/	
	Concurrence (NAVAIR 4130/8) . . . . .	6-63
Exhibit 6-13	CCB Change Request/Directive AIR-05 Staffing/	
	Concurrence (NAVAIR 4130/9) . . . . .	6-66
Exhibit 6-14	Controlling Custodian ECP Incorporation	
	Plan (NAVAIR 13051/9) . . . . .	6-69
Exhibit 6-15	System Safety Assessment Form (NAVAIR	
	4130/10) . . . . .	6-71
Exhibit 6-16	ECP Proess at Naval Air Systems Command.....	6-72
Exhibit 6-17	Sample Controlling Custodian (TYCOM) ECP	
	Coordination Letter.....	6-73
Exhibit 6-18	Hand Carry Approval Staffing Sheet.....	6-74
Exhibit 6-19	Sample Engineering Change Proposal Approval	
	Notification Letter.....	6-76

CHAPTER VII - CONFIGURATION STATUS ACCOUNTING.....7-1

- Definition of Configuration Status Accounting.....7-1
- Purpose of Configuration Status Accounting.....7-1
- Implementation of Configuration Status Accounting.....7-1
  - Mission Essential Subsystems Matrices.....7-1
  - Joint Service Programs.....7-1
  - Technical Directive Status Accounting.....7-2

APPENDICES

- A - Definitions.....A-1
- B - Configuration Management Related Documents.....B-1
- C - Guidance for Processing Class-I ECP's, RAMEC's and Major Deviations and Waivers for Field Managed Transitioned Programs.....C-1
- D - Configuration Management of Mission-Critical Computer Software.....D-1
- E - Forms.....E-1

INDEX.....I-1



NAVAIRINST 4130.1C  
31 Jan 92

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CHAPTER I

GENERAL INFORMATION

1. GENERAL

1.1 PURPOSE. This manual prescribes configuration management requirements, procedures, objectives, and definitions for use by the naval aviation program executive officer (PEO) organizations and the Naval Air Systems Command (NAVAIR).

1.2 APPLICATION. Configuration management will be applied to each hardware and/or software item for which the PEO for Cruise Missiles Project and Unmanned Aerial Vehicles Joint Project (PEO(CU)); PEO for Tactical Aircraft Programs (PEO(T)); PEO for Antisubmarine Warfare, Assault, and Special Mission Programs (PEO(A)); and NAVAIR have acquisition and logistic support responsibility. The configuration management requirements of this manual will be complied with by the office of primary responsibility throughout the life-cycle of each assigned item.

1.3 CONFIGURATION MANAGEMENT. Configuration management is the combined and systematic application of the following disciplines:

- a. Configuration Identification.
- b. Configuration Audits.
- c. Configuration Control.
- d. Configuration Status Accounting.

1.3.1 CONFIGURATION MANAGEMENT TERMS AND DEFINITIONS. Commonly used configuration management terms and definitions are identified by appendix A.

1.3.2 CONFIGURATION MANAGEMENT RELATED DOCUMENTS. Commonly used configuration management related documents (i.e. Military Specifications/Standards and instructions) are identified by appendix B.

1.4 LIFE CYCLE CONFIGURATION MANAGEMENT REQUIREMENTS. Configuration management will be implemented following formal configuration management plans approved by the Configuration Management, Program Policy and Resources Division (AIR-100). Figure 1-1 contains a schematic overview of life cycle configuration management requirements.

a. Concept Exploration and Definition Phase. In this phase, initial configuration management plans are formulated and the functional baseline is established.

b. Demonstration and Validation Phase. In this phase, configuration management plans are revised, functional baseline is updated, and the allocated baseline is established.

c. Engineering and Manufacturing Development Phase. In this phase, configuration management plans are revised and functional and allocated baselines are updated.

d. Production and Deployment/Operations and Support Phases. During these phases, configuration management plans are revised, the functional and allocated baselines are updated by a functional configuration audit, product baseline is established by a physical configuration audit, and the configuration status accounting record is coordinated with operating and support activities.

1.5 JOINT SERVICE CONFIGURATION MANAGEMENT. When more than one government activity is involved in the development, acquisition, modification, or support of a configuration item, a mutually approved configuration management plan will be included as part of the program interface agreement. Provisions of this manual will be used as guidance in negotiating the configuration management plan which must be approved by AIR-100 prior to the PEO's or program managers, air (PMA's) signing the interface agreement.

1.6 CONTRACTUAL REQUIREMENTS PROVISIONS. The office of primary responsibility will ensure that each contract for a configuration item contains appropriate provisions for configuration management plans, configuration identification, configuration control, configuration audits, and configuration status accounting, documentation requirements as outlined by this manual.

Figure 1-1  
1-3

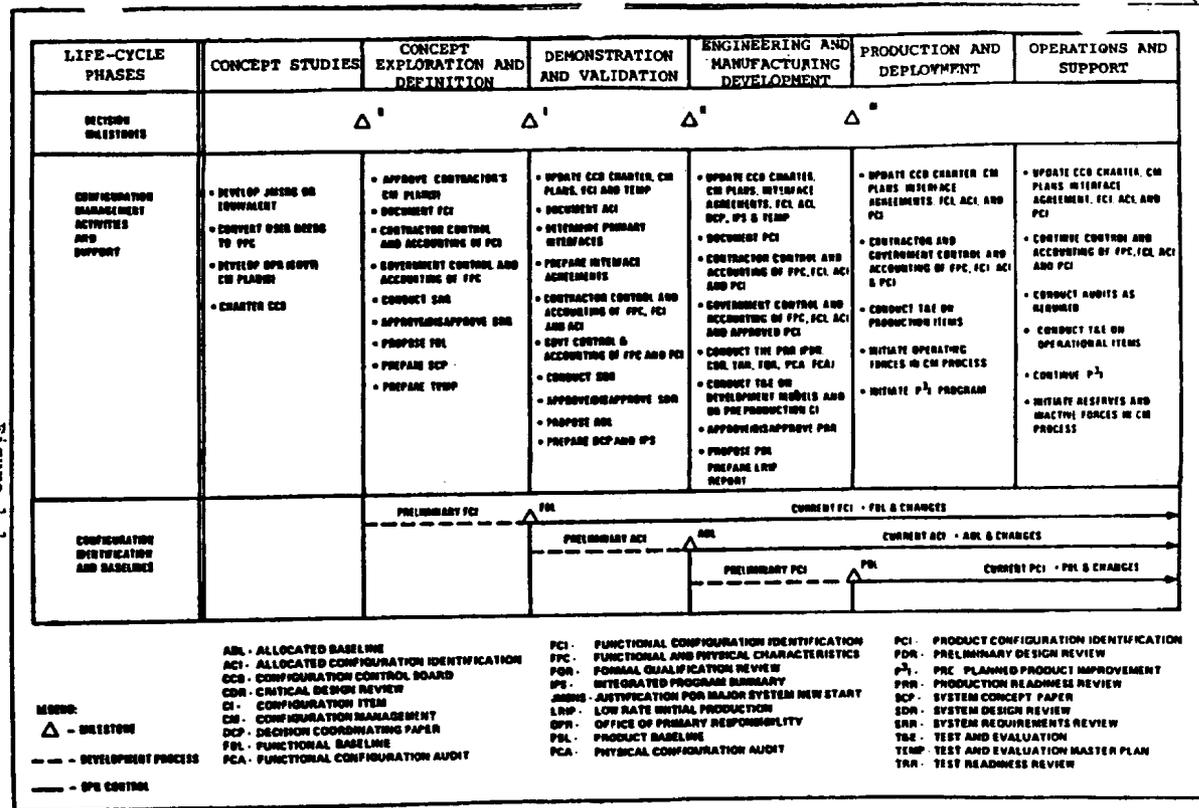


Figure 1-1 Life Cycle Configuration Management Overview

31 Jan 92

NAVAIRINST 4130.1C  
31 Jan 92

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31 Jan 92

## CHAPTER II

## CONFIGURATION MANAGEMENT PLANS

2. CONFIGURATION MANAGEMENT PLANS

2.1 TYPES OF CONFIGURATION MANAGEMENT PLANS. A configuration management plan defines the configuration item and procedures for configuration management application, tailoring, tasks, participants and their roles, products, locations, scheduled events, and other related programs or items. There are two types of configuration management plans: government office of primary responsibility configuration management plans; and contractor configuration management plans.

2.2 OFFICE OF PRIMARY RESPONSIBILITY CONFIGURATION MANAGEMENT PLAN. This plan is written by the office of primary responsibility for each configuration item assigned. It is required prior to program initiation and must be updated prior to each subsequent milestone decision. The initial plan and all revisions must be approved by AIR-100.

2.2.1 This plan will include, as a minimum, the following information:

a. A short introduction or description of the purpose and context of the plan and will identify the configuration items covered.

b. Listing of applicable configuration management documents.

c. Office of primary responsibility's configuration management organization and responsibilities.

(1) Explain the configuration management organization to be used, including applicable personnel and agencies (i.e. cognizant field activities, software review board, etc.).

(2) Assign configuration management responsibilities.

(3) List, define, and explain procedures to be used in the approval processes that are different from those described in this manual.

(4) Lay out the requirements for audits.

(5) Explain the level of configuration control to be accomplished.

(6) Explain the configuration status accounting system to be used.

(7) Indicate when the plan will next be reviewed, revised, and submitted to AIR-100 for approval. Plans must be reviewed every 2 years and updated prior to each milestone decision .

(8) Include a milestone chart that projects program phases and major events.

(9) Establish procedures, including required concurrences and signature authority for requesting engineering change proposals and subsequent revisions.

(10) Identify procedures which will address incorporation of production changes in delivered items, including trainers and support equipment.

2.2.2 If an office of primary responsibility has more than one configuration item under its management, the use of an umbrella configuration management plan is recommended. An umbrella configuration management plan addresses the overall configuration management organization and planning which will be used. A separate addendum may then be prepared for each assigned configuration item explaining and further tailoring specific policies and procedures to be followed to accomplish configuration management of the item.

### 2.3 CONTRACTOR CONFIGURATION MANAGEMENT PLAN

2.3.1 A separate configuration management plan will be required from each contractor who is developing and supplying hardware and/or software to the Navy. The office of primary responsibility will ensure that contractor plans are consistent with its own configuration management plans, this manual, and with total program needs.

2.3.2 If a contract has been awarded to a prime contractor whose configuration management plan has been previously approved by the government, the office of primary responsibility should require only revisions to the plan which were made subsequent to the date of approval, and those revisions or additions which address the new configuration items.

### 2.4 CONTRACTUAL REQUIREMENTS/PROVISIONS

2.4.1 Military Standard (MIL-STD-1456A) and Data Item Description (DID) DI-CMAN-80858 will be invoked in all PEO and NAVAIR contracts for submission and approval of contractor configuration management plans. Contractor configuration management plans will be reviewed and proved by the office of primary responsibility.

2.4.2 Compatibility between the office of primary responsibility and contractor configuration management, and achieved through solicitation, pre-contract award negotiations, and the contract change processes.

## CHAPTER III

### CONFIGURATION IDENTIFICATION

#### 3. CONFIGURATION IDENTIFICATION

3.1 PURPOSE. Configuration identification is necessary to define the functional and physical characteristics of a configuration item in sufficient detail so that it may be developed, tested, evaluated, produced, competitively procured, accepted, operated, maintained, and supported. Configuration identification is established by baselines plus approved changes.

3.2 BASELINES. A baseline is a configuration identification document or set of such documents formally designated by the government. Once established, the baselines for a given item do not change. There are three configuration baselines.

a. Functional Baseline. This baseline consists of the initially approved documentation describing an item's functional characteristics and the verification required to demonstrate the achievement of those characteristics. See figure 3-1 for applicable documentation.

b. Allocated Baseline. This baseline identifies the initially approved documentation describing a system or configuration item's functional and interface characteristics that are allocated from those of a higher level system or configuration item. See figure 3-2 for applicable documentation.

c. Product Baseline. This baseline describes all the physical and functional characteristics necessary for the procurement, production, test, inspection, evaluation, and acceptance of an item. The product baseline is established upon satisfactory completion of the physical configuration audit. See figure 3-3 for applicable documentation.

#### 3.3 CONFIGURATION IDENTIFICATION

3.3.1 Configuration identification consists of approved baselines plus approved changes to those baselines. The three levels of configuration identification are:

a. Functional Configuration Identification. Functional configuration identification consists of the approved functional baseline plus approved engineering changes to the functional baseline.

b. Allocated Configuration Identification. Allocated configuration identification consists of the allocated baseline plus approved engineering changes to the allocated baseline.

31 Jan 92

c. Product Configuration Identification. Product configuration identification consists of the approved product baseline plus approved engineering changes to the product baseline.

3.3.2 Changes to the approved configuration identification of an item are made by engineering change proposals processed under this manual.

### 3.4 CONTRACTUAL REQUIREMENTS/PROVISIONS

3.4.1 The office of primary responsibility will ensure that all procurement contracts contain the following:

a. A requirement to document baselines per MIL-STD-521A.

b. Deliverable data requirements (form DD 1423, Contract Data Requirements List), necessary to identify an item's configuration identification including:

(1) Engineering drawings and data lists per MIL-STD-100E and MIL-T-31000.

(2) Integrated or as built configuration lists per DID DI-E-21478 and MIL-STD-2684.

(3) Serial Number Configuration Lists per DID DI-CMAN-80195.

c. Performance oriented specifications governing engineering and operational system development efforts including test requirements per MIL-STD-490A and MIL-STD-961C.

d. Requirements for automatic test equipment compatibility following per MIL-STD-2076.

e. Nomenclature assignments and identification markings per MIL-N-18307G and MIL-STD-130G.

f. Configuration identification integrity by requiring change control per MIL-STD-480B or MIL-STD-481B (NAVAIR Instruction 4275.3F refers).

g. Other specifications, drawings, and documents required to govern acquisition efforts.

3.4.2 Major Modification Programs. Major modification programs, service life extension programs, and conversion in lieu of procurement programs all maintain an equal or higher degree of configuration identification as the original end item.

FUNCTIONAL CONFIGURATION IDENTIFICATION DOCUMENTATION

- Type A Configuration Item/  
System Specification
- Initial Requirements Statement
- Trade-off Analyses Report
- Design Studies Review
- System Requirements Review  
Minutes
- Conceptual Design Drawings
- System Concept Paper
- Operations Concept Paper
- Threat Assessment
- Program Risk Assessments
- Government Furnished  
Property Identification
- Test & Evaluation Reports

Figure 3-1

---

ALLOCATED CONFIGURATION IDENTIFICATION DOCUMENTATION

- Type B Development Specifications
- Interface Control Documents  
(Interface Requirements, Design, and Configuration Item Work  
Breakdown Structure)
- System Design Review Minutes
- Developmental Design Drawings and Associate Lists
- Test Item Descriptions
- Government Furnished Property Identification
- Referenced Product Configuration Identification
- Decision Coordinating Papers
- Integrated Program Summaries

Figure 3-2

---

PRODUCT CONFIGURATION IDENTIFICATION DOCUMENTATION

- Product, Material and Process Specifications  
(Types C, D and E)
- Technical Review Minutes
- Configuration Audit Reports
- Product Drawings
- Decision Coordinating Papers
- Integrated Program Summaries
- Low Rate Initial Production Reports
- Secretary of Defense Program Decision Memorandums (Milestone  
III) or Service Production Decisions
- Government Furnished Property Identification

Figure 3-3

NAVAIRINST 4130.1C  
31 Jan 92

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CHAPTER IV  
CONFIGURATION AUDITS

4. CONFIGURATION AUDITS

4.1 PURPOSE. Configuration audits verify that the configuration identification is accurate, complete, and will meet total program needs.

4.2 TYPES OF CONFIGURATION AUDITS. There are two types of configuration audits: the functional configuration audit (FCA) and the physical configuration audit (PCA). Both audits must be satisfactorily completed by the office of primary responsibility and monitored by the contractor as a prerequisite to establishing the product baseline.

4.2.1 Functional Configuration Audit. Functional configuration audits are conducted on both hardware configuration items and software configuration items to assure that the technical documentation accurately reflects the functional characteristics of each.

4.2.2 Physical Configuration Audit. The physical configuration audit is the formal examination of the as-built item against its design documentation. It normally includes a detailed audit of engineering drawings, specifications, technical data, quality control procedures, and production/acceptance tests.

4.2.3 Additional Audits. When the acquisition phase of an item spans a significant period of time, the accumulation of approved changes may warrant additional audits, or there may be a need to validate the performance of an item and the accuracy of its configuration identification and status accounting system. Requirements for such audits will be determined by the office of primary responsibility, AIR-100, or higher level authority.

4.3 GUIDANCE FOR CONDUCTING AUDITS. The office of primary responsibility will schedule and conduct functional and physical configuration audits following MIL-STD-1521B. Normally, due to the nature and criticality of configuration audits, they will be performed by government personnel. For additional information relative to life cycle technical reviews and configuration audits see figure 4-1.

4.4 CONTRACTUAL REQUIREMENTS/PROVISIONS. The office of primary responsibility will ensure that provisions for configuration audits are included in each procurement contract. This is usually accomplished by statement of work tasking and by involving DID DI-CMAN-80556 in the applicable Contract Data Requirements List, form DD 1423.

NAVAIRINST 4130.1C  
31 Jan 92

LIFE CYCLE TECHNICAL REVIEWS AND CONFIGURATION AUDITS

TYPE	PURPOSE	TYPICAL PROGRAM PHASE	RESULTS
SYSTEM REQUIREMENTS REVIEW (SRR)	REVIEW SYSTEM REQUIREMENTS DEFINITION & FUNCTIONAL DESCRIPTION	CONCEPT EXPLORATION & DEFINITION	DOCUMENTED MINUTES. SYSTEM SPECIFICATION & CONCEPTUAL DRAWINGS APPROVED. FUNCTIONAL BASELINE.
SYSTEM DESIGN REVIEW (SDR)	REVIEW ALLOCATION REQUIREMENTS & INTERFACE IDENTIFICATION	DEMONSTRATION/VALIDATION	DOCUMENTED MINUTES KEY SUBSYSTEMS & CRITICAL ITEMS IDENTIFIED. DEVELOPMENT SPECIFICATION & DEVELOPMENTAL DRAWINGS APPROVED. INTERFACE DEVELOPMENT SPECIFICATIONS APPROVED. UPGRADE FUNCTIONAL CONFIGURATION IDENTIFICATION. ALLOCATED BASELINE.
PRODUCTION READINESS REVIEW (PRR)	DETERMINE PRODUCTION READINESS	ENGINEERING & MANUFACTURING DEVELOPMENT (PROGRESSIVE REVIEWS & AUDITS)	DATA TO SUPPORT PRODUCTION DECISION. UPGRADE FUNCTIONAL & ALLOCATED CONFIGURATION IDENTIFICATION. ESTABLISH PRODUCT BASELINE.
PRELIMINARY DESIGN REVIEW (PDR)	REVIEW SELECTED DESIGN APPROACH	ENGINEERING & MANUFACTURING DEVELOPMENT (PRIOR TO START OF DETAILED DESIGN)	DOCUMENTED MINUTES/ACTION ITEMS. DESIGN APPROACH FOR ALL APPROVED ITEMS. INTERFACE CONTROL DOCUMENTS COORDINATED.
CRITICAL DESIGN REVIEW (CDR)	ENSURE DETAILED DESIGN SATISFIES DEVELOPMENT SPECIFICATIONS	ENGINEERING & MANUFACTURING DEVELOPMENT (PRIOR TO DESIGN RELEASE)	DOCUMENTED MINUTES/ACTION ITEMS. INCREMENTALLY & CONDITIONALLY APPROVED PRELIMINARY PRODUCT BASELINE INCLUDING PRODUCT, PROCESS & MATERIAL SPECIFICATIONS. PRODUCT DRAWINGS APPROVED. BASELINE TEST SPECIMENS.
SYSTEM READINESS REVIEW (SR)	DETERMINE READINESS FOR INTEGRATED TESTING	ENGINEERING & MANUFACTURING DEVELOPMENT (LATE)	DOCUMENTED MINUTES/ACTION ITEMS. INTEGRATION PROCEEDING. READY FOR HIGHER LEVEL TESTING.
TECHNICAL CONFIGURATION AUDIT (CA)	DETERMINE PERFORMANCE MEETS DEVELOPMENT SPECIFICATION	ENGINEERING & MANUFACTURING DEVELOPMENT (INCREMENTALLY) (AFTER GOVERNMENT TEST & EVALUATION)	DOCUMENTED MINUTES/ACTION ITEMS. TECHNICAL CONCLUDE THAT SYSTEM DESIGN & TEST MEET CONTRACT REQUIREMENTS.
SYSTEM CONFIGURATION IDENTIFICATION (PCI)	ENSURE ITEM IS BUILT TO LATEST CONFIGURATION IDENTIFICATION DOCUMENTATION	ENGINEERING & MANUFACTURING DEVELOPMENT (INCREMENTALLY) (PRIOR TO GOVERNMENT TEST & EVALUATION)	DOCUMENTED MINUTES/ACTION ITEMS. VERIFIED CONFIGURATION IDENTIFICATION.
QUALIFICATION REVIEW (QDR)	DETERMINE CONFIGURATION TEST RESULTS MEET CONTRACT REQUIREMENTS	ENGINEERING & MANUFACTURING DEVELOPMENT ON INITIAL OR FOLLOW ON PRODUCTION	QUALIFICATION CERTIFICATION. CONTRACT REQUIREMENTS DEMONSTRATED BY TEST. REVERIFY BASELINE.

Figure 4-1

CHAPTER V  
CONFIGURATION CONTROL

5. CONFIGURATION CONTROL

5.1 PURPOSE. Configuration control ensures that proposed engineering changes to configuration items are fully coordinated and documented.

5.2 DEGREES OF CONFIGURATION CONTROL. Configuration control is tailored during each life cycle phase of a configuration item as follows:

5.2.1 During the concept exploration and definition, demonstration and validation phases, configuration control will apply to an item's operational and functional requirements.

5.2.2 During the engineering and manufacturing development phase, configuration control will apply to an item's functional and allocated requirements.

5.2.3 During production, deployment, operating, and support phases, configuration control will apply to an item's functional, allocated, and product requirements.

5.3. CONFIGURATION CONTROL AUTHORITY

5.3.1 The authority to approve or disapprove Class I engineering change proposals, RAMEC's, and major/critical deviations or waivers for PEO and NAVAIR managed items resides with the NAVAIR Change Control Board, chaired by AIR-100.

5.3.2. Change control approval authority for Class I engineering change proposals during the Concept Exploration and Definition, Demonstration and Validation and Engineering and Manufacturing Development phases may be delegated to an office of primary responsibility by a change control board charter. If a charter is not issued, change control authority will remain with the NAVAIR Change Control Board. A sample request for a change control board charter is included as exhibit 5-1 to this manual. A sample change control board charter is included as exhibit 5-2.

5.4 CHANGES TO CONFIGURATION ITEMS AND CONFIGURATION

IDENTIFICATION. The following disciplines will be considered before a decision is made to change a configuration item or its configuration identification:

- a. Affordability.
- b. Financially executable.
- c. Functional and physical characteristics.

- d. All integrated logistic support elements.
- e. Quality assurance.
- f. Reliability.
- g. Maintainability.
- h. Availability.
- i. Operational readiness.
- j. Test and evaluation.
- k. Systems engineering (e.g. design integrity, interfaces, simulation, interchangeability, interoperability, nuclear hardening, survivability, human factors, etc.).
  - l. Nuclear safety.
  - m. Technical reviews.
  - n. Configuration audits.
  - o. Schedules (e.g. development, manufacturing, delivery, installation).
  - p. Retrofit requirements.
  - q. Impact on total life cycle costs.
  - r. Change justification.
  - s. Support equipment.
  - t. Security.
  - u. Interfaces with other configuration items.
  - v. Foreign military sales requirements.
  - w. Impact on environment (hazardous materials).
  - x. Ship and/or shore suitability.
  - y. Warranties/guaranties.
  - z. Requirements for government furnished property/equipment.
- aa. Mission Critical Computer Resources Requirements.

5.5 NAVAIR CHANGE IMPLEMENTATION. Once a Change Control Board has approved a proposed change, the office of primary responsibility will notify the originator of the action via the contracting officer. Implementation will be by the Change Control Board directive and this manual. If unable to execute as directed, the office of primary responsibility will formally notify the Change Control Board Chairperson who will determine if a revised change package is required.

5.6 PROGRAM AND PEO/NAVAIR MANAGEMENT PROPOSALS. Configuration changes require approval by either the Secretary of the Navy or the Commander, Naval Air Systems Command (COMNAVAIR). These approvals are documented in either program management proposals or NAVAIR management proposals. The Program and Budget Policy Office (AIR-08P) regulates the management proposal process for NAVAIR. The NAVAIR Change Control Board will not approve a configuration change without an AIR-08P endorsement that the management proposal issue has been satisfied. For additional information refer to SECNAV Instruction 5000.33B, Program Management Proposal Process.

5.7 RETROFIT REQUIREMENTS FOR PRODUCTION CHANGES. To ensure the commonality of configuration items, the NAVAIR Change Control Board will not approve a production effectivity change until retrofit requirements for all previously delivered items have been reconciled with the Assistant Commander for Fleet Support and Field Activity Management (AIR-04), and are accurately documented by the appropriate Change Control Board Change Request/Directive.

5.8 METHODS USED FOR PROPOSING CHANGES TO A CONFIGURATION ITEM. There are four vehicles which may be used for formally proposing changes to a configuration item. They are engineering change proposals, deviation requests, waiver requests, and RAMEC's.

5.8.1 Engineering Change Proposals. An engineering change proposal is the standard method for making alterations to a configuration item. Engineering Change Proposal form DD 1692 (long form) and form DD 1693 short form), or their equivalents, are used to initiate engineering change proposals. See MIL-STD-480B for forms and additional information.

5.8.1.1 Contractual Requirements/Provisions. The office of primary responsibility will ensure that provisions for MIL-STD-480B, "Configuration Control - Engineering Change", Deviations and Waivers," or MIL-STD-481B short Form), are contained in all contracts which affect or deliver hardware or software following NAVAIR Instruction 4275.3F.

5.8.1.2 Tailoring of Configuration Control Requirements. Any proposed tailoring of MIL-STD-480B or MIL-STD-481B requirements must be approved by the Configuration and Data Management Branch (AIR-1006).

5.8.1.3 Classification of Engineering Change Proposals. An engineering change proposal will be classified as Class I or Class II by criteria contained in MIL-STD-480B entitled Configuration Control-Engineering Changes, Deviations and Waivers."

5.8.1.4 Review and Approval of Class I Changes. All Class I engineering change proposals must be reviewed and approved by a NAVAIR Change Control Board, prior to implementation.

5.8.1.5 Review and Approval of Class II Changes. Unless otherwise specified by contract, NAVAIR does not review and approve Class II engineering change proposals. The government contract administrative office servicing the program has authority to approve the classification and implementation of the change as Class II. However, if a contractor does not have custody of the design, lists, and other documents comprising configuration identification of an item, each Class II engineering change will be approved by the government activity having cognizance of the configuration item or its technical data package.

5.8.1.6 Review and Approval of Commercially Controlled Changes. Configuration changes to off the shelf contractor supported items which are issued as air-worthiness directives, contractor service bulletins, or all operator letters will be reviewed by all user organizations for applicability, compatibility, and supportability prior to being submitted to NAVAIR (AIR-1006) for Change Control Board approval. To facilitate the processing and funding of such changes, they may be periodically combined on one Change Control Board Change Request/Directive.

5.8.1.7 Change Planning and Coordination

5.8.1.7.1 Prior to requesting an engineering change proposal, the office of primary responsibility will ensure that all concerned parties have a thorough technical and logistics understanding of the contemplated change. It is recommended that technical reviews be held prior to requesting a change proposal. This will ensure that governments written request for the engineering change proposal is clearly understood.

5.8.1.7.2 Interested foreign governments will be given an opportunity to review and procure pertinent engineering changes applicable to items procured by PEO/NAVAIR for their use. Changes which have both Navy and foreign military sales applications will be processed as single change packages, whenever practical, to promote more efficient procurement, lower costs, and uniform support. However, foreign military sales requirements will not hinder nor delay the timely processing of U.S. Navy requirements. The Defense Security Assistance Division (AIR-103) is the focal point for coordination of foreign military sales policy matters.

31 Jan 92

5.8.1.8 Funding for Engineering Changes. The office of primary responsibility will ensure all required funding is available and reserved for a proposed change prior to issuing the decision memorandum.

5.8.1.9 Engineering Change Proposal Categories. There are two categories of engineering change proposals:

a. Solicited. Solicited engineering change proposals are submitted in response to a written request made by the office of primary responsibility.

(1) When the office of primary responsibility is requesting an engineering change proposal, copies of the request will be forwarded to the type commanders (Commander, Naval Air Force, Pacific/Commander, Naval Air Force, Atlantic/Commander, Naval Air Reserve Forces/Chief of Naval Air Training), and other cognizant activities. Exhibit 5-3 contains a sample request for an engineering change proposal.

(2) The office of primary responsibility will establish procedures with the cognizant contracting officer for requesting engineering change proposals.

b. Unsolicited. Unsolicited engineering change proposals are those submitted without a formal written request. Such proposals are not encouraged and will be rejected unless they satisfy one or more of the following criteria:

(1) Correct deficiencies.

(2) Have a significant reduction in manufacturing, operational, or logistic support costs.

(3) Prevent slippage in an approved production schedule.

(4) Are a value engineering change proposal. The Product Integrity and Production Engineering Division (AIR-516) is responsible for managing the value engineering program for the PEO organizations and NAVAIR.

5.8.1.10 Types of Class I Engineering Change Proposals. There are two types of Class I engineering change proposals:

a. Preliminary Engineering Change Proposal. A preliminary engineering change proposal is used to determine if a formal engineering change proposal is justified. It is not reviewed by a change control board and cannot be used to authorize a change to a configuration item.

b. Formal Engineering Change Proposal. a formally submitted engineering change proposal which has been engineered, documented, and priced in sufficient detail to support approval, and subsequent contractual authorization by a NAVAIR Change Control Board.

5.8.1.11 Production Approvals. Production approvals ensure that new or modified configuration items are suitable for use and capable of performing their intended functions under fleet operating conditions. The Automated Systems Analysis and Support Branch (AIR-1003) manages production approval matters for NAVAIR. The Change Control Board will not approve a proposed engineering change proposal without evidence that all approval for production issues have been resolved.

5.8.1.12 Submission of Class I Engineering Change Proposals by Contractors. Contracts awarded by NAVAIR will be structured to assure that the original engineering change proposal, or a copy, is submitted directly to AIR-1006, with information copies to other affected PEO/NAVAIR codes and cognizant activities.

5.8.1.12.1 When an acquisition program for a configuration item has more than one prime contractor, the office of primary responsibility will ensure that engineering change proposals are concurred with by all other associated contractors prior to submission. When one contractor's engineering change impacts another contractor, companion engineering change proposals will be submitted. For additional information regarding the proper review and submission of related engineering changes see MIL-STD-480B.

5.8.1.12.2 DID (DI-CMAN-80639) will be invoked in NAVAIR contracts as a technical data requirement for submission of engineering change proposals by contractors.

5.8.1.13 Submission of Class I Engineering Change proposals by Government Activities. Government agencies will submit engineering change proposals directly to NAVAIRHQ (AIR--1006) with information copies to other affected PEO/NAVAIR codes and cognizant activities. See appendix C for additional information and guidance regarding the submittal and processing of engineering change proposals by government activities.

5.8.2 Request For Deviation. A deviation is a written authorization, prior to the manufacture of a configuration item, to depart from a particular performance or design requirement of a specification, drawing, or other document for a specified number of items or period of time. A request for deviation will be designated as minor, major, or critical following MIL-STD-480B. Recurring deviations which are indicative of inherent design problems or over restrictive performance requirements, will not be submitted for change control board approval. If such a condition exists, an engineering change proposal will be requested and processed following this manual.

5.8.2.1 DID (DI-CMAN-80640) will be invoked in NAVAIR contracts as a technical data requirement for submission of major or critical deviations.

5.8.2.2 Requests for major or critical deviations will be treated and processed the same as Class I engineering change proposals. Deviations do not require cost and funding summaries.

5.8.3 Request For Waiver. A waiver is written authorization to accept a configuration item which, during manufacture or after having been submitted for inspection and acceptance, is found to depart from specified requirements, but is considered suitable for use as is or after reward by a government approved method. Each request for waiver will be designated as minor, major, or critical by MIL-STD-480B. Submittal of recurring waivers, which are indicative of inherent design problems or overly restrictive performance requirements will not be submitted for Change Control Board approval. If such a condition exists, an engineering change proposal will be requested and processed following this manual.

5.8.3.1 DID (DI-CMAN-80641) will be invoked in all NAVAIR contracts as a technical data requirement, for submission of major and critical waivers.

5.8.3.2 Requests for major or critical waivers will be treated and processed the same as Class I engineering change proposals. Waivers do not require cost and funding summaries.

#### 5.8.4 RAMEC's

5.8.4.1 The RAMEC program is designed to accommodate fleet self-help engineering changes for limited scope modifications which are typically incorporated at the organizational or intermediate maintenance levels. Only fleet activities or end item users (naval aviation depots, cognizant field activities, etc.) may initiate and submit RAMEC's to NAVAIR for approval.

5.8.4.2 RAMEC's will be processed for Change Control Board approval as other Class I engineering change proposals. For additional information regarding the RAMEC program, refer to NAVAIR Instruction 5215.10D.

5.9 CHANGES TO MASTER GOVERNMENT FURNISHED EQUIPMENT LISTS. The master government furnished equipment list (MGFEL) is a primary configuration management document. It is established and maintained by the Production Management Division (AIR-114) for each fiscal year of aircraft production or commercial modification program. As an appendix to a detail specification, the MGFEL identifies the approved government furnished equipment configuration for an aircraft weapon system, upon which fiscal year procurements are based. The MGFEL is not an approval document for engineering or specification changes. Any proposed configuration change to an approved MGFEL, which under MIL-STD-480B, is defined as Class I, requires the submittal of formal engineering change proposal, accompanied by a proposed specification change notice (form DD 1696).

5.9.1 A proposed MGFEL change which is not defined as a Class I change under MIL-STD-480B, does not require the submittal and approval of a formal Class I engineering change proposal; however, a proposed specification change notice, including an applicable cost impact statement, must be submitted and approved by the NAVAIR Change Control Board following this manual, before such changes can be incorporated in an MGFEL.

5.9.2 MGFEL's will be approved by AIR-1006 prior to being incorporated in contracts issued by the Assistant Commander for Contracts (AIR-02).

5.10 MISCELLANEOUS REQUIREMENTS FOR GOVERNMENT FURNISHED EQUIPMENT. Engineering Change Proposals which identify government furnished equipment requirements that are not applicable to a MGFEL must be identified on a CCB Change Request/Supplement (Government Furnished Equipment Requirements FY- ) (NAVAIR 4103/5) and submitted as part of the change request package to AIR-1006.

5.11 SOFTWARE CHANGES. Engineering Changes which impact mission-critical computer resources or mission-critical computer software requirements, must be reviewed and concurred with by the software cognizant office. The Avionics and Computer Resources Division (AIR-546) is the software cognizant office for all NAVAIR managed programs. See appendix D for additional information.

5.12 NAVAIR CHANGE CONTROL BOARD. There is one standing NAVAIR Change Control Board. It was established by CONNAVAIR and is managed by the Deputy Commander for Acquisition and Operations (AIR-01). The board has the authority to review, evaluate, approve, disapprove, or cancel in whole or part all Class I engineering change proposals, major/critical deviations and waivers, and RAMEC's.

5.13 MEMBERSHIP OF THE NAVAIR CHANGE CONTROL BOARD. Membership on the NAVAIR Change Control Board will consist of experienced, qualified representatives from configuration management, systems engineering, production management, logistics support, contracts, aviation training, and other areas as may be required. All members will be formally nominated to AIR-100. Current membership consists of:

- a. Voting Members: Chairperson, Configuration Management, Plans and Resources Division Director (AIR-100), or designated representatives

The designated representative(s) for the Assistant Commander for Systems and Engineering (AIR 05).

31 Jan 92

The designated representative(s) for AIR-04.

The designated representative(s) for the Director, Production Management Division (AIR-114).

The designated representative(s) for the Aviation Training Systems Program Office (PMA205).

The designated representative(s) from other systems commands, as may be required for joint programs.

b. Full time Associate Members (Non-Voting):

The designated representative(s) from the Assistant Commander for Contracts (AIR-02) (normally from Policy and Management Division (AIR-211)).

The designated representative(s) from Support Equipment Division (AIR-552).

The designated representative(s) from the Aviation Supply Office (ASO) Philadelphia, PA.

The designated representative(s) from the Naval Air Technical Services Facility (NAVAIRTECHSERVFAC) Philadelphia, PA.

c. Associate Members:  
As Appropriate  
(Non-Voting)

NAVAIR Avionics and Computer Resources Division (AIR-546).

Naval Depot Operations Center (NAVAVNDEPOTOPSCEN), Patuxent River, MD.

Naval Air Warfare Center Aircraft Division, Lakehurst, NJ.

Ships Parts Control Center Warminster, PA.

Naval Training Systems Center, Orlando, FL.

Test and Evaluation Division (AIR-120).

Other Military Services (Air Force, Army, Coast Guard, USMC, etc.).

- d. Secretariat: Recorder/Secretary as designated  
(Non-Voting) by AIR-1006.

5.14 RESPONSIBILITIES OF THE NAVAIR CHANGE CONTROL BOARD MEMBERS. Responsibilities of the NAVAIR Change Control Board members are:

a. Chairperson. The authority for final decision on changes is the responsibility of the chairperson who will ensure that all board members have an opportunity to address each proposed change. The chairperson will call for a vote on a change when all information on the subject has been presented. The chairperson may elect to defer voting until complete information is made available. When necessary, the chairperson may direct members to provide additional information, for full consideration of a proposed change. The chairperson will also apprise change control board members of the latest NAVAIR policy and procedures, with respect to configuration management and change control board procedures.

b. Voting Members. In addition to voting on changes, voting members are responsible for the development and presentation of information relating to their respective functional areas.

c. Associate (Non-Voting) Members. Associate members are responsible for providing additional information relating to their functions as may be required by the chairperson.

d. Secretariat. The secretariat provides administrative services including:

(1) Record receipt of and assign Change Control Board numbers for all Class I engineering change proposals, RAMEC's and requests for major/critical deviations or waivers.

(2) Publish the Change Control Board agenda.

(3) Record and distribute minutes of each change control board meeting.

(4) Record status of outstanding Class I Engineering Change Proposals, RAMEC's, and requests for major/critical deviations or waivers.

EXHIBIT 5-1

SAMPLE  
REQUEST FOR CHANGE CONTROL BOARD CHARTER

13484  
Ser PMA952D1/5.182

MEMORANDUM

From: PMA952  
To: AIR-100

Subj: REQUEST FOR CONFIGURATION CHANGE CONTROL BOARD CHARTER  
FOR THE FULL SCALE DEVELOPMENT PHASE OF THE F-54 AIRCRAFT

Ref: (a) NAVAIRINST 4130.1C

Encl: (1) Draft F-54 Configuration Management Plan

1. Following reference (a), the Naval Air Systems Command Configuration Management Manual, enclosure (1), is forwarded for approval. This plan describes the configuration procedures to be used for F-54 aircraft configuration management during full scale engineering development (FSED). Revisions to enclosure (1), if required, will be made when the program enters the production phase and the establishment of the F-54 Product Base Line (PBL) is complete. In order to implement enclosure (1), it is requested that PMA952 be chartered to conduct a change control board during the F8ED phase of the F-54 program following the guidance of reference (a).

2. The point of contact for configuration management is XXXX  
XXXXXX, PMA952, 692-8047.

CAPT XXXXXX  
F-54 Program Manager

EXHIBIT 5-2

SAMPLE  
CONFIGURATION CHANGE CONTROL BOARD CHARTER

I. PURPOSE: Following NAVAIRINST 4130.1C, the F-54 Program Manager (PMA952) is hereby delegated the authority to establish and chair a Change Control Board (CCB). This authority is to be exercised by NAVAIR Instruction 4130.1C's modified by the F-5 Configuration Management Plan. PMA952 will ensure that all Class I ECP's and requests for major deviations or waivers presented to the CCB have been processed using the CCB Change Request forms identified by NAVAIRINST 4130.1C.

II. EXPIRATION DATE: This charter will remain in effect for period of 1 year or until completion of the physical configuration audit (PCA) establishing the Product Baseline (PBL) for the system, whichever comes first.

III. BACKGROUND: The F-54 fighter was derived from the F-47 Basic Model Aircraft. The F-54 will commence production during fiscal year 93 and is presently undergoing Full scale Engineering Development. The first F-54 will be delivered during March 1996.

IV. INTERFACES: The F-54 fighter and its interfaces are defined in and will be controlled to SD-XXX-X-X Detail Specification for the F-54 Fighter).

V. Details: Specific configuration management practices and procedures are provided in the F-54 Fighter Aircraft Configuration Management Plan. During the effective period of this charter, PMA952 will maintain status accounting of all approved F-54 Aircraft Changes.

VI. EXTENSIONS AND REVISIONS: Extensions and revisions of this charter will require approval by AIR-100.

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CAPT X. X. XXXXXXXX, AIR-100  
CONFIGURATION MANAGEMENT, PROGRAM  
POLICY AND RESOURCES DIVISION

DATE: \_\_\_\_\_

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EXHIBIT 5-3

SAMPLE  
REQUEST FOR ENGINEERING CHANGE PROPOSAL

13051  
Ser AIR-5116B/1634

Modern Corporation, Aircraft Systems Division  
ATTN: Mr. Charles Contractor 1001  
South Main Street  
Anytown, USA 10001

VIA: Commanding Officer, Defense Plant Representative Office  
Modern Corporation, Aircraft Systems Division  
1001 South Main Street  
Anytown, USA 10001

Reference: Contract Number 99-001-99ABCD

Attention: Mr. Contractor

There has been a significant decrease in the mean time between failure of the Flight Control Backup Module in the F-99Z airplanes. As a result of our examination of 3M data, Navy investigation by on site engineers and recommendations by your engineers, we have determined that the best solution to this problem is the replacement of the pitch drive motor. We have also determined that a temperature warning system will give early indication of failure, and allow maintenance of the System before major damage has been done.

It is requested that you submit an ECP to implement the corrective changes to this system. The engineering approach agreed to in our meeting of 16 March 1991 is to be used. Your logisticians and Navy personnel have discussed the logistics impact of this change, and the logistic and maintenance philosophy agreed to should be followed with close attention to a method of implementation that will reduce the number of man hours required to access and service the flight control bay. Incorporation of these changes is to be targeted for aircraft BUNO and subsequent. In order for NAVAIR to evaluate and approve the change, your ECP must be submitted no later than 31 May 1991. Include in your ECP any peculiar non-recurring and logistics costs associated with retrofit and kit prices, assuming the Navy will buy 18 retrofit kits per year.

This letter neither implies nor directs any change in the price, terms or conditions of the referenced contract. If you disagree, notify the Procurement Contracting Officer, AIR-214x, immediately, in writing, prior to taking any action.

NAVAIRINST 4130.1C  
31 Jan 92

PMA763 concurs with this request.

/S/  
PROCUREMENT CONTRACTING OFFICER

Copy to:  
COMNAVAIRLANT (Code 552)  
COMNAVAIRL (Code 725)  
COMNAVRESFOR (Code 57)  
NESO Norfolk VA (Code 310)

CHAPTER VI

CHANGE PROCESSING AT NAVAL AIR SYSTEMS COMMAND

6. CHANGE PROCESSING AT NAVAL AIR SYSTEMS COMMAND

6.1 PURPOSE. To provide information and guidance for processing a proposed change to a configuration item, within NAVAIR.

6.2 APPLICATION. The procedures in this chapter will be followed when processing Class I engineering change proposals, major or critical deviations and waivers, and RAMEC's.

6.3 RESPONSIBILITY. The office of primary responsibility is the program office or code which has overall management responsibility for one or more configuration items. This office is responsible for the staffing, processing, and implementation of all changes.

6.4 PROCESSING STEPS

6.4.1 STEP 1: Change Entry Into the Modification Management Information System (MODMIS). Once in engineering change proposal, RAMEC, request for major/critical deviation, or waiver is received by AIR-1006, the secretariat will enter all relative processing information into MODMIS. In addition, a document tracking number will be assigned to the proposed change for determining status.

6.4.2 STEP 2: Forwarding of Proposed Changes. After logging the proposed change in the MODMIS system, AIR-1006 will forward it to the office of primary responsibility for action.

6.4.3 STEP 3: Change Proposal Evaluation and Planning Conference. After receipt of a proposed change from AIR-1006, the office of primary responsibility will conduct an evaluation and planning conference for determining if the change meets the requirements. The conference will include, as a minimum, representatives from the following functional areas:

a. AIR-02 (Assistant Commander for Contracts) will determine the method of contracting and if a justification and approval or certificate of urgency is required, etc. The cognizant procurement contracting officer or specialist and representative from AIR-211 will represent AIR-02.

b. AIR-04 (Assistant Commander for Fleet Support and Field Activity Management) will determine if the change is supportable and ensure that all issues regarding retrofit have been addressed.

31 Jan 92

c. AIR-05 (Assistant Commander for Systems and Engineering) will review technical content for determining if the proposed change will correct a deficiency, solve a problem, or meet a requirement.

d. AIR-1003 (Automated Systems Analysis and Support Branch) will determine if operational testing is required.

e. Production Management Division (AIR-114) will determine the impact the proposed change will have on production requirements (e.g. government furnished equipment requirements including lead time, master government furnished equipment lists, production effectivity, etc.).

f. PMA205 (Aviation Training Systems Program Office) will determine if training requirements have been properly identified and addressed.

g. Other Program Management and Functional Support Personnel will conduct a thorough review of the proposed change as required when the change affects more than one configuration item.

6.4.3.1 If it is determined, as a result of the change proposal evaluation and planning conference, that the change should not be accepted, the office of primary responsibility will issue a rejection letter to the originator within 30 days citing the reasons for rejection. A copy of the letter will be forwarded to all concerned parties including the change control board secretariat (AIR-1006). Exhibit 6-1 is a sample rejection letter.

6.4.3.2 Upon receipt of the rejection letter, the change control board secretariat will update MODMIS.

6.4.3.3 If the change is to be accepted, but is determined to be technically inadequate, the office of primary responsibility will issue a letter to the originator requesting an appropriate revision or amendment following MIL-STD-480B. A revision requires complete restaffing unless otherwise authorized by the NAVAIR Change Control Board Chairperson. A copy of this letter will be provided to the AIR-1006 Change Control Board secretariat and all other concerned parties. Exhibit 6-2 is a sample letter requesting an engineering change proposal revision or amendment.

6.4.3.3 Upon receipt of the request for revision or amendment letter, the Change Control Board secretariat will update MODMIS.

#### 6.4.4 STEP 4: Decision Memorandum

6.4.4.1 Once the decision has been made to process the change, the office of primary responsibility will issue a decision memorandum within 60 days. All Class I engineering change proposals, requests for major or critical deviations and waivers, MGFEL changes, and follow-on buy actions require decision memoranda prior to processing. The decision memorandum with copies of the Engineering Change Proposal will be distributed in parallel to AIR-1006, AIR-02, AIR-1003, AIR-08P, AIR-04, AIR-05, PMA205 and all other concerned parties. A sample decision memorandum is included as exhibit 6-3 to this manual.

6.4.4.2 Upon receipt of the decision memorandum the change control board secretariat will enter essential data into the MODMIS system required for Change Control Board scheduling and monitoring the status of the change.

#### 6.4.5 STEP 5: Preparation and Assembly of Change Control Board Package

6.4.5.1 Assembly of Change Control Board Package. The office of primary responsibility will be responsible for compiling the completed Change Control Board package, based on the inputs received from the matrix review. Exhibit 6-4 indicates which of the following Change Control Board forms must be completed and included in the final Change Control Board change package submitted to AIR-1006.

1) NAVAIR CCB Change Request/Directive (form NAVAIR 4130/1). This form provides program management personnel and CCB members with essential information regarding proposed changes. See Exhibit 6-5 for sample form.

2) Cost and Funding Summary (form NAVAIR 4130/2). This form is used to reflect the total cost of the modification program effort except Operational and Maintenance, Navy (O&MN). See Exhibit 6-6 for sample form.

3) Milestone Chart (form NAVAIR 4130/3). This form is used to identify the month(s) in which deliveries/implementation is scheduled. See Exhibit 6-7 for sample form.

4) Implementation Form (form NAVAIR 4130/4). This form is used to identify and assign implementing responsibility to applicable parties after change approval. See Exhibit 6-8 for sample form.

5) Government Furnished Equipment (GFE) Requirements Form (form NAVAIR 4130/5). This form is used to identify GFE requirements other than those applicable to a Government Furnished Equipment List (MGFEL), required to support a change. See Exhibit 6-9 for sample form.

31 Jan 92

6) Master Government Furnished Equipment List (MGFEL) Form (form NAVAIR 4130/6). This form is used when making changes to an approved MGFEL when impacted by a change. See Exhibit 6-10 for sample form.

7) Support Equipment Requirements Form (form NAVAIR 4130/7). This form is used to identify support equipment requirements necessary to support a change. See Exhibit 6-11 for sample form.

8) AIR-04 Routing/Concurrence Form (form NAVAIR 4130/8). This form is used to certify that a proposed change has been staffed and concurred with by AIR-04 and is ready for approval. See Exhibit 6-12 for sample form.

9) AIR-05 Routing/Concurrence Form (form NAVAIR 4130/9). This form is used to certify that a proposed change has been staffed and concurred with by AIR-05 and is ready for approval. See Exhibit 6-13 for sample form.

10) Controlling Custodian (TYCOM) (form NAVAIR 13051/9). This form is used to obtain concurrences from the fleet with respect to planned ECP incorporation. See Exhibit 6-14 for sample form.

11) System Safety Assessment Form (form NAVAIR 4130/10). This form is used to process a change to correct a situation in which there is a potential risk that loss of property or life could occur. See Exhibit C-15 for sample form.

6.4.5.2 Office of Primary Responsibility Final Review and Forwarding. At the completion of the staffing described above, the office of primary responsibility must possess the complete documentation of the NAVAIR matrix review. A final evaluation of the change proposal will be conducted in light of this review to determine if incorporation of the change is still recommended. The office of primary responsibility will also obtain appropriate endorsements on the forms from requiring financial managers, contracting officers, and all others with implementing actions certifying that the actions are executable.

6.4.6 STEP 6: Matrix Staffing and Processing. Exhibit 6-16 depicts the change and matrix staffing process at NAVAIR. The decision memorandum initiates matrix review, preparation, and staffing of the change control board package. It also provides guidance, establishes the staffing schedule, and documents all agreements reached and actions assigned during the change proposal evaluation and planning conference. Also, it contains applicable cost and funding data and milestone information. Staffing will generally consist of but not be limited to the following:

6.4.6.1 AIR-02 (Assistant Commander for Contracts) will determine how the change can best be contractually implemented. The decision memorandum will include a statement that a justification and approval (J&A) and/or a certificate of urgency either is or is not required. The office of primary responsibility will include an AIR-211 endorsement in the final package which it submits to AIR-1006 for Change Control Board action.

6.4.6.2 AIR-1003 (Automated Systems Analysis and Support Branch) will make a determination relative to the requirement for an approval for production, extension of, or additional follow-on testing. The decision memorandum will include a statement that approval for production or follow-on testing either is or is not required. If such approval or testing is required, the decision memorandum will state whether it is in hand or in process. AIR-1003 will endorse the decision memorandum either recommending approval, or spelling out the steps that must be taken prior to AIR-1003 recommending board approval, and return the decision memorandum to the office of primary responsibility. The office of primary responsibility will include this endorsement in the final change package submitted to AIR-1006 for NAVAIR Change Control Board action.

6.4.6.3. AIR-08P (Program and Budget Policy and Support Division) will make a determination relative to the requirement for either a program management proposal or a PEO/NAVAIR management proposal. The decision memorandum will include a statement that a program management proposal or PEO/NAVAIR management proposal either is or is not required. If such a proposal is required, the decision memorandum will state whether the proposal is in hand or in process. AIR-08P will endorse the decision memorandum either recommending approval or spelling out the steps that must be taken prior to board approval and return the decision memorandum to the office of primary responsibility. The office of primary responsibility will include an AIR-08P endorsement in the final change package submitted to AIR-1006 for NAVAIR Change Control Board Action.

6.4.6.4 AIR-04 (Assistant Commander for Fleet Support and Field Activity Management) will staff the proposed change following AIR-04 internal processing procedures. This staffing must be documented and concurred to by completing the CCB Change Request/Directive AIR-04 Staffing/Concurrence form (NAVAIR 4130/8). The cognizant APNL is normally responsible for completing the Cost and Funding Summary form (NAVAIR 4130/2), Milestone Chart form (NAVAIR 4130/3), the applicable section of the Support Equipment Requirements Form (NAVAIR 4130/6), if support equipment requirements are impacted, and the CCB Change Request/Supplement Government Furnished Equipment (GFE) Requirements Form (NAVAIR 4130/4), when GFE other than a MGFEL item is necessary to support the change. If the change required modification and/or kit installation at the operational or intermediate maintenance level, Controlling custodian ECP

Incorporation Plan (NAVAIR 13051/9), must be completed. See exhibit 6-17 for a sample TYCON Engineering Change Proposal coordination letter. All logistic support inputs must be coordinated with AIR-05 prior to being forwarded to the office of primary responsibility for inclusion with the final change control board change package. See exhibit 6-4 for determining which forms must be completed when processing a certain type of change.

6.4.6.5 AIR-05 (Assistant Commander for Systems and Engineering) will staff the proposed change following AIR-05 internal processing procedures. This staffing must be documented and concurred to by completing the CCB Change Request/Directive AIR-05 Staffing/Concurrence form (NAVAIR 4130/9). The cognizant engineer is normally responsible for completing the CCB Request/Directive form (NAVAIR 4130/1) Master Government Furnished Equipment (MGFEL) Change form (NAVAIR 4130/6) if a MGFEL is impacted, and the applicable section of the Support Equipment Requirements form (NAVAIR 4130/7) when support equipment requirements are impacted. All engineering inputs must be coordinated with AIR-04 prior to being forwarded to the office of primary responsibility for inclusion with the final change control board change package. See exhibit 6-4 for determining which forms must be completed when processing a certain type of change.

6.4.6.5.1 Government Furnished Equipment Requirements. When change generates new, or modified existing government furnished equipment requirements, the cognizant engineer must coordinate the change control board package with AIR-114 for concurrence with government furnished equipment identification and ordering, funding, and scheduling requirements.

6.4.6.5.2 Software Requirements. When a change involved mission-critical computer resources or mission critical computer software requirements, the cognizant engineer must coordinate the change control board package with the software cognizant office. AIR-546 is the software cognizant office for all NAVAIR managed programs. See appendix D for additional information.

6.4.6.6 PMA-205 (Aviation Training Systems Program Office) will staff the proposed change with applicable AIR-04 and AIR-05 codes prior to forwarding inputs to the office of primary responsibility for inclusion with the final change control board change package.

6.4.7 STEP 7: Change Control Board Scheduling. After all required signatures have been obtained, the office of primary responsibility will prevent the change package to the Change Control Board Secretariat (AIR-1006) who will verify the package is complete, update the MODMIS system, and schedule the proposed change for a formal board hearing. Incomplete packages will be rejected and returned to the office of primary responsibility for corrective action.

6.4.8 STEP 8: Change Control Board Meeting

6.4.8.1 During the Change Control Board meeting, changes will be addressed in the order identified by the agenda, unless otherwise directed by the chairperson. A qualified representative designated by the office of primary responsibility will present the change to the board.

6.4.8.2 Non-government employees are not permitted to attend Change Control Board conferences except by permission of the chairperson.

6.4.9 STEP 9. Change Control Board Approval

6.4.9.1 The Change Control Board will approve or disapprove all Class I engineering change proposals, requests for major deviations or waivers, and RAMEC's.

6.4.9.2 Decisions rendered by the Change Control Board may be appealed to the Change Control Board chairperson. However, such action will be undertaken only in response to a memorandum from the office of primary responsibility. The memorandum must include the basis for the appeal. As a result of this memorandum, the chairperson will determine whether the proposed change will be reconsidered by the Change Control Board.

6.4.9.3 All Change Control Board actions are published in formal minutes and distributed weekly.

6.4.9.4 Master copies of Change Control Board change requests/directives and related forms are retained by AIR-1006 for approximately 3 years and then retired to the archives files. Copies of engineering change proposals, RAMEC's, and requests for major or critical deviations and waivers, received or processed at NAVAIR will be retained by the cognizant office of primary responsibility and the engineering and logistics divisions, until implementation is complete.

6.4.10 STEP 10: Special Change Approval

6.4.10.1 Hand Carry Authorization and Approval. When an emergency or urgent engineering change proposal or request for a major/critical deviation or waiver requires approval prior to a regularly scheduled change control board conference, the office of primary responsibility may request hand carry approval authorization from the Change Control Board chairperson by the following procedures:

a. The office of primary responsibility must first hold an evaluation and planning conference and prepare an appropriate change package, including a memorandum signed by the cognizant program manager or deputy, citing the urgency and the need for hand carry approval.

31 Jan 92

b. The office of primary responsibility must deliver these documents to the Change Control Board chairperson, who will determine if the proposed change should be hand carried.

c. If the Change Control Board chairperson authorizes hand carry approval, the office of primary responsibility must carry the completed change control board change package to all voting members in order to obtain the required signatures. Voting Change Control Board members will not sign a hand carried action unless they are confident that the change can be implemented. Once the required signatures are obtained the change package must be returned to the Change Control Board chairman for final action. This process must be completed within 2 working days. If it will take longer, AIR-1006 will be immediately notified.

d. All changes approved by the handcarry process will be published in the next change control board minutes. Although changes are authorized for immediate implementation, they will be presented to a formal change control board hearing within 30 days. This action will permit the board an opportunity to identify any additional staffing or implementing requirements. Exhibit 6-18 is a sample Change Control Board hand carry authorization and approval route sheet provided by AIR-1006.

6.4.10.2 Interim Changes. In some urgent situations where safety or operational readiness is a key factor, an interim change may be authorized by issuing an interim technical directive. However, an interim technical directive does not replace the requirement for a formal engineering change proposal and technical directive. The use of an interim technical directive must be authorized by the Change Control Board chairperson and followed up within 180 days by a formal engineering change proposal. NAVAIR Instruction 5215.12 provides policy and procedures for the preparation and staffing of interim technical directives.

6.4.10.3 Follow-On Buys. Approval of a change authorizes the first year of the procurement only. When a change requires supplemental procurement, follow on buy change packages will be prepared and staffed for each subsequent fiscal year. Subsequent fiscal year requirements will be processed as a follow-on (i.e. CCB No. XX-XXXR1, R2, etc.) to the initially assigned Change Control Boards number. Staffing will include the office of primary responsibility for issuance of an abbreviated decision memorandum notifying matrix personnel of need/intent to process/staff subsequent fiscal year requirements and the concurrence of cognizant requiring financial managers, the APML, the systems project engineer/class desk, and all other functional codes assigned implementing action. Once these concurrences have been obtained, the follow-on Change Control Board change request/directive will be accepted by the Change Control Board Secretariat (AIR-1006) for approval by the Change Control Board chairperson. Approval actions will be recorded and published in the Change Control Board minutes.

6.4.10.4 Administrative Changes. In cases where the Change Control Board directive needs to be administratively modified such actions must be approved by the Change Control Board chairperson. Administrative changes may entail additional staffing.

6.4.10.5 Safety Related Engineering Change Proposals. An engineering change proposal required to correct a situation in which there is significant risk that loss of life or property may occur can be designated as safety related. The office of primary responsibility will begin the processing of all safety related Class I changes by presenting them to the NAVAIR Safety Office (AIR-09F). If the office of primary responsibility does not have adequate funding to support a safety related change, it will immediately request the necessary funds from the NAVAIR Comptroller (AIR-08). AIR-09F will complete a System Safety Assessment Form (NAVAIR 4130/10), and make a recommendation on the processing of the change. Decision memorandums for changes which the safety office recommends expedited processing will be stamped with the NAVAIR safety stamp and have a signed copy of the system safety assessment form attached. The NAVAIR Safety Officer, and the office of primary responsibility, will track implementing actions for safety related Class I changes, and will take necessary management actions to ensure that they are carried out as directed. The special procedures described in this paragraph are in addition to the normal change processing procedures described in the remainder of this chapter.

6.4.11 STEP 11: Change Implementation. In order to accelerate change implementation, the office of primary responsibility will notify the originator and all implementing codes of change approval or disapproval within 48 hours. Such notification will follow procedures established jointly by the office of primary responsibility and cognizant procurement contracting officer. Exhibit 6-19 is a sample engineering change proposal approval notification letter.

6.4.11.1 Once approved by the Change Control Board, the Change Control Board request/directive becomes a directive from COMNAVAIR to the office of primary responsibility and implementing codes for executing all actions as approved. If it becomes necessary to modify implementing actions, such modifications must be approved by the Change Control Board chairperson. This may entail additional staffing.

6.4.11.2 Implementing codes and agencies will carry out all actions identified by the approved Implementing Instructions CCB Change Directive Implementation Form (NAVAIR 4130/4). They are also responsible for advising the office of primary responsibility of the status of those actions for seeking assistance when they encounter difficulties or when they recognize that approved plans must be changed.

NAVAIRINST 4130.1C  
31 Jan 92

6.4.11.3 The office of primary responsibility must ensure that the implementing codes and agencies carry out all actions as directed. It must also monitor overall implementation.

6.4.11.4 AIR-100 is responsible for maintaining an overall picture of the configuration management and weapon system modification processes. The offices of primary responsibility and implementing codes will provide change implementation data as required.

6.12 STEP 12: Change Cancellation. To cancel all or portion of a Change Control Board approved change, the office of primary responsibility must issue a decision memorandum citing the reason(s) for cancellation. A revision to the previously approved Change Control Board change request/directive (e.g. CCB No. XX-XXXR1) must then be prepared. The Change Control Board chairperson will determine what staffing must take place for the cancellation action. The cancellation action will be brought before the Change Control Board for formal approval.

EXHIBIT 6-1

SAMPLE  
ENGINEERING CHANGE PROPOSAL REJECTION LETTER

From: Commander, Naval Air Systems Command  
To: Blank Aircraft Corporation (Address)  
Via: Defense Plant Representative

Subj: CONTRACTS N00019-79-C-0550 AND N00019-79-C-0086, F-112  
AIRCRAFT; INSTALLATION OF ENGINEERING CHANGE PROPOSAL  
GR-F-112-9999, FUEL QUANTITY SYSTEM JUNCTION BOXES

Ref: (a) BLR ltr w/NAVPRO endorsement of 1 May 79

1. Engineering Change Proposal GR-F-112-999, "Fuel Quantity System Junction Boxes, Installation of," submitted as enclosure (1) to reference (a) has been considered by the Naval Air Systems Command and is rejected. The improved capability or utility proffered, when weighed against the requirement and/or the service status of the aircraft, does not justify the cost.
2. Your initiative and effort in preparing the change proposal are appreciated.

SIGNATURE  
(Requesting/Cognizant NAVAIR code)  
By direction

Copy to: Project Manager  
Assistant Program Manager/Project Officer  
Project Coordinator  
Production Management Division (AIR-114)  
Cognizant Engineer (AIR-512/533/536)  
CCB Secretariat (AIR-1006)  
AIR-04 Change Control (AIR-4105D)  
(Other Codes Affected, e.g., ASO, NAVAIRTECHSERVFAC, NADOC, etc.)

(For GFE components and other commodity areas, furnish copies to agencies concerned.)

NAVAIRINST 4130.1C  
31 Jan 92

EXHIBIT 6-2

SAMPLE  
REQUEST FOR REVISION OR AMENDMENT TO AN  
ENGINEERING CHANGE PROPOSAL

13051  
Ser AIR-5116/1633

Modern Corporation, Aircraft Systems Division  
Attention: Mr. Charles Contractor  
1001 South Main Street  
Anytown, USA 10001

Via: Commanding Officer, Defense Plant Representative Office  
Modern Corporation, Aircraft Systems Division  
1001 South Main Street  
Anytown, USA 10001

Reference: Contract Number 99-001-99ABCD

Attention Mr. Contractor:

NAVAIR engineering and logistics specialists have reviewed your ECP no. NODCOR-089 which provides for the replacement of the pitch drive motor with a new design motor, not in current Navy inventory. During the meetings, before our request for an ECP, we agreed that the FSN-21-097854 motor would be used for this modification. Additionally, your ECP did not address the maintenance tools and test sets required to service the new temperature warning system, which you have specified.

It is requested that you provide NAVAIR a revised ECP (or amendment) to address the above requirements. Our engineers and logisticians will be available for telephone discussions, or a meeting to discuss the details.

This letter neither implies nor directs any change in the price, terms, or conditions of the referenced contract. If you disagree, notify the Procurement Contracting Officer (PCO), AIR-214X, immediately in writing, prior to taking any action.

PMA763 concurs with this request.

/S/  
PROCUREMENT CONTRACTING OFFICER

Copy to:  
COMNAVAIRLANT (Code 522)  
COMNAVAIRPAC (Code 725)  
COMNAVAIRESFOR (Code 57)  
Norfolk VA (Code 310)

EXHIBIT 6-3

SAMPLE  
DECISION MEMORANDUM

MEMORANDUM

From: PMAXXX

To: Distribution

Subj: DECISION MEMORANDUM FOR GRUMMAN ECP NO. GR-EA-6B-270;  
CANOPY JETTISON HANDLE SAFETY LATCH DATED 1 TUBER 1988

Note: Subject matter will be unclassified and must include the name of the ECP Originator and the configuration item affected.

Ref: (a) NAVAIRINST 4130.1C

Encl: (1) Draft Milestone Chart

1. The purpose of the subject ECP is to prevent inadvertent jettison of the EA-6B canopy during normal flight operations.
2. As required by reference (a), an ECP evaluation/planning conference was held on 10 October 1988 with representatives from the Contracts Division (AIR-2XXX), the Aviation Systems Training Program Office (PMA205XXX), the Logistics Management Division (AIR-4XXX), and the Systems Engineering Division (AIR-5XXX). Since the proposed ECP addressed both production and retrofit requirements and would require government furnished equipment, representative from the Production Management Division (AIR-114) was also in attendance. It was also determined that a Program Management Proposal (PMP) and Approval for Production (AFP) would be required prior to this change being approved and incorporated.
3. As a result of this ECP evaluation/planning conference the following actions were assigned:
  - a. PMAXXX (configuration manager, etc.) will be responsible for coordinating program management proposal and production approval requirements with AIR-801 and AIR-1003, and obtaining the required concurrences.
  - b. PMAXXX will also be responsible for preparing the draft Justification and Approval (JLA) in narrative form and monitor its approval status. Technical program personnel will assist the program office as may be required.
  - c. AIR-02XXX will prepare the smooth J&A utilizing the draft inputs provided by the program office. AIR-02XXX will also assist PMA XXX in obtaining the required approvals.

d. AIR-04XXX will staff the change following AIR-04 internal procedures and will prepare and provide PMA XXX the applicable Cost and Funding summary and Milestone Chart for inclusion into the formal CCB Change Request/Directive. The APML will also coordinate the proposed change with AIR-552 (Support Equipment) and PMA 205 (Aviation Systems Training).

e. AIR-05XXX will staff the change following AIR-05 internal procedures and will prepare and provide PMA XXX the CCB Change Request Directive (NAVAIR 4130/1). AIR-05XXX will also coordinate with AIR-04XXX, AIR-114 and PMA205 as applicable.

f. PMA205XXX will coordinate and provide aviation training inputs to AIR-04.

g. AIR-114XXX will provide AIR-05XXX with a completed GFE requirements form for supporting the proposed change.

5. The staffing and implementation of the subject ECP will be based on the following guidance:

- a. NAVAIRHQ Routing Priority: Routine
- b. Desired Production Effectivity: Serial No. P-72
- c. Funding identified and reserved:

APN-1 thru 4	\$ XXX,XXX.XX
APN-5	\$ XXX,XXX.XX
APN-6	\$ XXX,XXX.XX
O&MN	\$ XXX,XXX.XX

6. This change will be presented to the NAVAIR Change Control Board on XX/XX/XX. Staffing of the subject ECP must be completed and all inputs provided to PMA XXX by XX/XX/XX.

7. A draft milestone chart (NAVAIR 4130/3) identifying the planned implementation of the change is provided as enclosure (1).

PMA XXX

Distribution: (see next page)

Distribution:

AIR-1006 (Configuraton Management Branch)  
AIR-1003 (Automated Systems and Analysis Support Branch)  
AIR-02XX (Cognizant PCO/Contract Specialist)  
AIR-04XXX (Cognizant APML)  
AIR-05XXX (Cognizant Engineer/Class Desk)  
AIR-114X (Cognizant Production Manager)  
PMA205X (Aviation Training Systems)  
AIR-801X (Program and Budget Policy)

Copy to:

AIR-211 (CCB Representative)  
AIR-410C (O&MN RFM)  
AIR-410C1 (CCB Representative)  
Naval Air Technical Services Facility (NATSF)  
(CCB Representative)  
Cognizant Field Activities (NAC, NAEC, PMTC, etc.)

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ENDORSEMENTS:

EXHIBIT 6-4

FORMS REQUIRED FOR THE PREPARATION OF CCB CHANGE PACKAGES

A Change Control Board change request/directive must be prepared and processed for all Class I engineering change proposals (including value engineering change proposals), requests for major/critical deviations or waivers, RAMEC's, NGFEL's, work completion date extensions, and revisions and/or documents thereto. The chart below identifies which forms or documents must be completed and included in a final change request/directive package, when processing one of the following types of change control board actions.

<u>TYPES OF CHANGES</u>		<u>ECP</u>	<u>RFD</u>	<u>RFW</u>	<u>RAMEC</u>	<u>MGFEL</u>
<u>CCB CHANGE REQUESTED</u>	<u>DIRECTIVE FORMS</u>					
1.	NAVAIR CCB Change Request/Directive (NAVAIR 4130/1) Exhibit 6-5	X		X	X	X
2.	Cost and Funding Summary (NAVAIR 4130/2) Exhibit 6-6	X			X	*X
3.	Milestone Chart (NAVAIR 4130/3) Exhibit 6-7	X		X	X	X
4.	Implementing Instructions (NAVAIR 4130/4) Exhibit 6-8	X		X	X	X
5.	CCB Change Request/Supplement (Government Furnished Equipment Requirements (FY _)) (NAVAIR 4130/5) Exhibit 6-9	* X				
6.	Master Government Furnished Equipment List (MGFEL) Change (NAVAIR 4130/6) Exhibit 6-10	* X				X
7.	Support Equipment Requirements Form (NAVAIR 4130/7) Exhibit 6-11	* X				
8.	CCB Change Request/Directive AIR-04 Staffing/Concurrence Form (NAVAIR 4130/8) Exhibit 6-12	X		X	X	X
9.	CCB Change Request/Directive AIR-05 Staffing/Concurrence Form (NAVAIR 4130/9) Exhibit 6-13	X		X	X	X
10.	Controlling Custodian (TYCOM) ECP Incorporation Plan Form (NAVAIR 13??1/9) Exhibit 6-14	** X				X
11.	CCB System Safety Assessment Form (NAVAIR 4130/10) Exhibit 6-15					
12.	Decision Memorandum, Exhibit 6-3	X		X	X	X

\* If Affected

\*\* O & I Level Installations Only

ECP: Engineering Change Proposal  
RFD: Request for Division  
RFW: Request for Waiver  
RAMEC: Rapid Action Minor Engineering Change  
MGFEL: Master Government Furnished Equipment List

31 Jan 92  
NAVAIRINST 4130.1C

CCB CHANGE REQUEST/DIRECTIVE			
1. TYPE OF CHANGE <input type="checkbox"/> ECP <input type="checkbox"/> DEVIATION <input type="checkbox"/> RAMEC <input type="checkbox"/> MGFEL <input type="checkbox"/> WAIVER		2. CHANGE NO.	3. DOCUMENT TRACKING NO.
5. ORIGINATOR		4. JUST. CODE	5. CCB NO.
6. PROGRAM MANAGER SPONSORING THIS CHANGE (SIGNATURE AND DATE)		7. NATURE OF CCB ACTION <input type="checkbox"/> INITIAL REQUEST <input type="checkbox"/> ADMINISTRATIVE REQUEST <input type="checkbox"/> REVISION <input type="checkbox"/> ROUTINE <input type="checkbox"/> FOLLOW ON BUY <input type="checkbox"/> HANDCARRY	
11. TITLE OF CHANGE		8. CODE	10. PHONE
13. CONFIGURATION ITEM AFFECTED AND EFFECTIVITY		12. TYPE OF IMPLEMENTATION <input type="checkbox"/> PRODUCTION <input type="checkbox"/> RETROFIT <input type="checkbox"/> ATTRITION OSIP NO. _____	
15. OTHER CONFIGURATION ITEMS AFFECTED AND EFFECTIVITY		14. PD CATEGORY <input type="checkbox"/> IMMED <input type="checkbox"/> ROUTINE <input type="checkbox"/> URGENT <input type="checkbox"/> RECORD	
17. REFERENCES		18. TECHNICAL DIRECTIVE TYPE                    NO.                    M/MRS _____ _____ _____	
18. JUSTIFICATION			
19. CCB MEMBERS		CODE	20. REMARKS (CCB CHAIRMAN ONLY)
AIR-04 ILS/FLEET SUPPORT			
AIR-05 SYSTEMS ENGINEERING			
AIR-114 PRODUCTION MANAGEMENT			
205 AVIATION TRAINING			
AIR-01 CCB CHAIRMAN			21. <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED
			22. DATE

NAVMR 4130/1 (2-82)

Exhibit 6-5

INSTRUCTIONS FOR COMPLETING NAVAIR CCB CHANGE REQUEST/DIRECTIVE  
(NAVAIR 4130/1)

NAVAIR 4130/1: This form is intended to provide program management personnel and Change Control Board members with essential information regarding the proposed change, to assure that full consideration has been given to all aspects of the proposed change, and to document that it has been properly staffed by with this manual. This form is normally prepared by the assistant program manager for systems engineering or cognizant engineer.

CLASSIFICATION: If the change request/directive contains classified information, include the proper security classification and downgrading and/or declassification information following NAVAIR Instruction 5510.2C.

Block 1. Type of Change: Insert an "X" next to the type of change being processed.

Block 2. Change Number: Enter the originator's change identification number.

Block 3. Document Tracking Number: Insert the document tracking number assigned by AIR-1006 to the proposed change. This number is identified by the AIR-1006 Change Control Board chairman memorandum issued to an office of primary responsibility after the receipt of an engineering change proposal, deviation, waiver, or RAMEC. The document tracking number is logged into MODMIS to permit interim tracking of the change while it is being staffed.

Block 4. Justification Code: If the change is an engineering change proposal enter the justification code identified by the original change document.

Block 5. Change Control Board (CCB) Number: This block is received for the permanent Change Control Board number which will be inserted by the Change Control Board secretariat after a proposed change has been staffed and hand delivered to AIR-1006 for Change Control Board scheduling/action.

Block 6. Originator: Insert the name and address of the contractor or government agency that originated the proposed change.

Block 7. Nature of CCB Action: Insert an "X" next to the line(s) that best describes the nature of the Change Control Board action. This information will determine what approval procedures will be followed.

- Initial Request: This type of action indicates that the proposed change will be reviewed by the Change Control Board for the first time.
- Revision: This type of action implies that a previously approved change must be revised in some manner. A revision to a Change Control Board action is also used to identify and process a cancellation.
- Follow-on Request: This type of action indicates that the change has been previously approved but contains subsequent (follow-on) fiscal year procurements still requiring Change Control Board approval prior to implementation.
- Administrative Request: This type of action indicates administrative changes and/or corrections which are approved by the Change Control Board chairman.
- Routine: This type of action implies that no unusual or compelling conditions exist to warrant other than normal Change Control Board processing procedures.
- Handcarry: This type of action implies that a safety or other urgent requirement exists requiring that the special handcarry Change Control Board approval procedures outlined in chapter VI of this manual apply.
- Block 8. Program Manager: This signature certifies that the program manager sponsoring this change has reviewed the matrix staffing of the proposed change and requests that the Change Control Board approve it.
- Block 9. Code: Enter program manager/code.
- Block 10. Phone: Telephone number of program manager.
- Block 11. Title of Change: Enter title as it appears on the proposed change documentation.
- Block 12. Type of Implementation. Insert an "X" next to all proposed implementing actions. If retrofit is required, insert the OSIP number, if one exists, when the Engineering Change Proposal is executing. Since engine and/or power plant changes

31 Jan 92

involving retrofit will not have an assigned OSIP number insert P (for Power Plant Change) - (dash) and the FY (fiscal year) in which the change is approved.

Block 13. Configuration Item Affected and Effectivity: Identify the configuration item affected by the change by nomenclature or type/model/series and the proposed effectivity. Include operator trainers or other training system configuration items.

Block 14. Technical Directive (TD) Category: Insert an "X" next to the category that best indicates the category of TD required to implement the change. See NAVAIR Instruction 5215.12, NAVAIR Technical Directive System, for definition of categories.

Block 15. Other Configuration Items Affected and Effectivity: List all other weapon systems, subsystems, and equipment affected by the change by type/model/series. Include the proposed effectivity. If none, enter the word "NONE." The following elements will be considered when interface issues exist:

a. Support equipment, automatic test equipment, semi-automatic checkout equipment, basic automatic checkout equipment, versatile avionics shop test equipment, etc.

b. Ship installation, catapult, arresting gear changes, changes in landing aids, ships communications, navigation aids, etc.

c. Modification to aircraft external stores, inflight refueling packages, bomb racks, missile launchers, etc., which may be required to make the proposed change compatible with the aircraft

d. Changes to the aircraft equipment, either contractor or government furnished, which will be required as a result of the change, in engine modification, changes to auxiliary power supplies.

e. Changes to an aircraft which will be required as a result of a component change, i.e., electrical systems, hydraulic systems, flight control systems, fire control systems, etc.

f. Any engineering change to any other item or any administrative change to any other contract, task or order which must be made if the proposed change is approved, i.e. technical data, publications, other contractual documentation.

g. Ground facility installations required as a result of this change, ground communications or navigation aids, and support equipment.

h. Fuel and oxygen systems.

i. Tactical computer software programs.

j. Interferences such as electromagnetic and radio frequency interferences.

Block 16. Technical Directive Type, Number, and Installation Man-Hours: Assigned by AIR-410 after change control board approval.

Block 17. References: Identify the correspondence that requested the proposed change and other pertinent correspondence from the fleet, reports, studies, and other data that pertains to the change. For Change Control Board actions involving orders for correction of deficiencies, list the source and date of notification to the contractor which cited the defect. Include any related engineering changes that are being requested or processed concurrently as well as applicable test and evaluation results and authorization for fleet installation.

Block 18. Justification: Justification must establish need. The following information should be furnished:

(1) The operational or military necessity which the change satisfies. On fleet requests, give the comments of the highest endorsing authority. Identify failure rate and the improvement expected, expressed in terms of increased mean time between failures.

(2) For "safety" changes, include risk assessment, and hazard probability. Support the risk assessment with information from pertinent Quality discrepancy reports, mishap results, mishap history, and statistical data. Indicate whether this is the only action being taken to resolve the problem or whether follow-on action is also required. Safety changes must include a "System Safety Assessment Form" (NAVAIR 4130/10).

Note: Whenever technical directive categories of "Immediate" or "Urgent" are recommended, they must be fully justified in this block.

(3) Whether an investigation has been conducted regarding the problem. Explain steps taken to ensure earliest possible incorporation and delivery of the required change, and interim measure which are in effect. Explain what can be expected in the change is not made. Explain whether the delivery schedule included in the proposed change is acceptable, and if not, what steps have been taken to obtain improvements, e.g., limiting the scope of the change, proposals for alternate corrections, etc.

(4) State whether the change requires a formal nuclear safety study before the Secretary of Defense will grant nuclear certification of the affected nuclear weapon system. The following statement will be included: "A formal nuclear safety study is or is not required."

NOTE: Such a determination will be made by the NAVAIRHQ Nuclear Safe Branch (AIR-54042) as required by the Chief of Naval Operations.

(5) Identification of significant change to weight and performance, fuel and oxygen supply, electrical, pneumatic, hydraulic, engine, and power loading, etc.

(6) Include one of the following statements with respect to effect on guarantees:

(a) This change is required to correct a defect/ failure in (state the kind of defect, i.e., material or workmanship) for which the contractor assumes responsibility following the guidance of (state reference in which the contractor states this). Under these circumstances the contractor is not entitled to a change in guarantees.

(b) This change is required to correct a failure to meet (state kind of failure, i.e., contract specialization, guarantees. or some other specific contractual requirement) for which the contractor assumes responsibility following the guidance of (state reference in which the contractor states this). Under these circumstances the contractor is not entitled to a change in guarantees.

(c) This change is required to correct a defect in (state kind of defect, i.e., material of workmanship) for which the contractor does not assume responsibility. The reason(s) for determining the defect is (are) as follows: (state reason(s)). Under these circumstances the contractor is not entitled to a change in guarantees.

(8) Follow-on buys need not be technically justified again, as long as no technical change has occurred since the change was initially approved. However, a statement should be made relative to conformance to original planning: i.e., all prior fiscal year modifications and retrofit requirements have been completed following previously approved schedules, etc.

(9) Foreign military sales case numbers will also be entered in this section when applicable.

(10) Include a statement when special staffing/processing procedures have been used and approved per the office of primary responsibility Configuration Management Plan.

Block 19. Change Control Board Voting Members: This block is reserved for Change Control Board approval signatures.

Block 20. Remarks: This block is reserved for Change Control Board chairman use only. All comments, contingencies, assigned action, etc., relative to Change Control Board actions are reflected here.

Block 21. CCB Change Request/Directive Status  
(Approved/Disapproved: This block indicates the status of the proposed change after Change Control Board action.

Block 22. Date: Self explanatory.



INSTRUCTIONS FOR COMPLETING COST AND FUNDING SUMMARY  
(NAVAIR 4130/2 )

NAVAIR 4130/2 must reflect the total cost of the modification program (i.e. past, present and future) effort. All costs, except operational And Maintenance Navy (O&MN), summarily are to be shown in the then year dollars. O&MN costs are to be shown in current year dollars. APN-51 (installation costs) are to be shown in actual installation year dollars. A Cost and Funding Summary (NAVAIR 4130/2) must correspond to each Milestone Chart (NAVAIR 4130/3) prepared for the proposed modification program. All fiscal year funding appearing on form NAVAIR 4130/2 for each cost element must be certified and reserved by the requiring financial manager for prompt implementation of the proposed change after approval by the NAVAIR Change Control Board. Separate forms will be prepared for production and retrofit where more than one implementing code, tasked activity, or funding type is applicable to a particular block. Separate forms will also be prepared for identifying requirements for multiple configuration items approved under one engineering change proposal or for foreign military sales. This form will be completed by the assistant program managers for logistics and engineering. Classification (if needed and added to form).

Block 1. Item Affected and OSIP Number: Identify the primary configuration item affected by the Engineering Change Proposal. Identify the OSIP, if one exists, which the Engineering Change Proposal is executing. Since engine and/or power plant changes involving retrofit will not have an assigned OSIP Number, insert P (for power plant change) - (dash) and the FY (fiscal year) in which the change is approved.

Block 2. Document Tracking Number: Enter the document tracking number from block 4 of the NAVAIR CCB Change Request/Directive (NAVAIR Form 4130/1).

Block 3. CCB Number: Leave blank. The Change Control Board secretariat will insert the Change Control Board CCB number from block 5 of the NAVAIR Change Control Board Request Directive (NAVAIR Form 4130/1) when submitted to AIR-1006 for Change Control Board scheduling.

Block 4. Engineering Change Proposal Number (ECP No.): Insert the Engineering Change Proposal or RAMEC number exactly as submitted by the originator.

Block 5. Change Elements: This block contains the change elements which may be affected by the proposed engineering change. Each change element is identified by a preassigned key. All change elements and preassigned keys appearing on this form correspond with those on the Milestone Chart (NAVAIR 4130/3).

NAVAIRINST 4130.1C  
31 Jan 92

Key A. Design, Prototype and Test: Identify costs for each fiscal year to be incurred.

Costs: To obtain costs for this line, refer to form DD 1692-3 blocks 48A and 48b for cost data.

These costs occur in the first PY of the modification program unless otherwise authorized.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the Engineering Change Proposal originator.

Block 7. Implementing Code: The implementing code for production requirements is the cognizant procurement contracting officer. The implementing code for out of production/retrofit requirements is the cognizant logistics manager.

Key B. Validation and Verification (VAL\VER):

Costs: Refer to engineering change proposal form DD 1692-5 for cost data.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

31 Jan 92

- Block 6. Tasked Activity: The tasked activity must be identified to establish responsibility for change implementation. The Engineering Change Proposal originator is normally the tasked activity for validation. Verification is dependant upon the kit installation level (O, I, and D) and is normally delegated to a Navy depot by the cognizant logistics manager.
- Block 7. Implementing Code: The implementing code for validation and verification is normally the cognizant logistics manager or Navy depot.
- Key C. Drawings:
- Costs: Costs for production drawings are normally included in nonrecurring costs.
- Refer to form DD 1692-3 blocks 48a and 48b under engineering/engineering data revision. If the cost of drawings is not separately identified from the cost of engineering man hours, then the drawing line must indicate the costs are included in change element A.
- Costs for production drawings are incurred in the first (current) FY of the modification program. Costs for retrofit drawings are incurred in the fiscal year in which retrofit is approved.
- Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.
- RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.
- Block 6. Tasked Activity: The tasked activity for drawings in the Engineering Change Proposal originator.

31 Jan 92

Block 7. Implementing Code: The implementing code for production requirements is the procurement contracting officer. The implementing activity for out of production/retrofit requirements and for "aircraft only" Engineering Change Proposals is the cognizant logistics manager.

Key D. Technical Directive:

Costs: Refer to form DD 1692-3 block 48b and 48c, "Preparation of MWO/TCTO/SC/Alt. Instruction."

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block C. Tasked Activity: The Engineering Change Proposal originator is generally the tasked activity.

Block 7. Implementing Code: The implementing code for technical directives for in warranty or no cost production requirements is normally the procurement contracting officer. The implementing activity for out of warranty requirements is normally the cognizant logistics manager.

Key E. Design Change Notices (DCN's) Provisioning:

Costs: Costs for these efforts are often included in nonrecurring engineering costs, and are normally included in the first fiscal year for the modification program. Refer to form DD 1692-3 block 48e. If costs for DCN's and provisioning data are not separately identified, consult with the engineering Change Proposal

originator to determine if this cost has been included in another Cost line.

- Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.
- RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.
- Block 6. Tasked Activity: The tasked activity for DCN's And provisioning is normally the Engineering Change Proposal originator.
- Block 7. Implementing Code: The implementing code for production requirements is the procurement contracting officer. The implementing activity for out of production/retrofit requirements is the cognizant logistics manager.
- Key F. Logistics Support Analysis (LSA)/Maintenance Plan/Support Material List (SML):
- Costs: If the cost of LSA, Maintenance Plans, and the ML are not separately identified from nonrecurring costs, a statement should be added to this form to indicate the costs are included in the total nonrecurring line.
- Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation for funding this element.
- RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.
- Block 6. Tasked Activity: The tasked activity is normally the Engineering Change Proposal originator.
- Block 7. Implementing Code: The implementing code for in-production equipment is the procurement contracting officer. The

NAVAIRINST 4130.1C  
31 Jan 92

implementing activity for out of  
production equipment is the  
cognizant logistics manager.

Key G. Trainers:

Costs:

This line identifies the costs associated with incorporating the proposed Engineering Change Proposal into operational and/or maintenance trainers. These costs are often included in the nonrecurring engineering costs for the configuration item that is being changed. If non-recurring costs associated with the trainers are not listed separately, this line should indicate that the costs are included in the total nonrecurring line.

Type of Funding:

Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM:

The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity:

The tasked activity is normally the Engineering Change Proposal originator or trainer prime contractor.

Block 7. Implementing Code:

The implementing code for production requirements is the procurement contracting officer if the ECP originator is the prime contractor for the trainer. The implementing activity for retrofit requirements is PMA205 if the Engineering Change Proposal originator is not the prime trainer contractor.

Key H. Government Furnished Equipment (GFE): Check the appropriate block to indicate if GFE is or is not required. GFE requirements are normally indicated by form DD 1692, block 6.

Costs:

Cost of GFE is not normally included in the Engineering Change Proposal by the contractor. Consult with the cognizant government systems engineer and/or cognizant government procuring activity to determine quantities, unit cost, procurement lead time, and other technical details. Government furnished

equipment requirements and cost are identified by form NAVAIR 4130/5 (exhibit 6-9).

Procurements of GFE must provide inventories to meet the schedules previously constrained by the OSIP budget, installation resources, and kit procurement guidelines including lead time.

Type of Funding:

Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM:

The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity:

Refer to the form NAVAIR 4130/5.

Block 7. Implementing Code:

The implementing code is generally the cognizant GFE procurement activity who is responsible for monitoring the GFE support requirements. AIR-114 only procures MGFEL and/or other weapon replaceable assembly items that are contracted for by AIR-02.

Key I. Kits/Basic:

Costs:

FY costs for kits, with the exception of GFE, are determined using the unit prices found in form DD 1692-3 block 48b.

Enter quantity of kits and costs under the fiscal year column for funds used to fund the requirement. Conversely, these quantities will be reflected on line "I" of the Milestone Chart (NAVAIR 4130/3) under the fiscal year scheduled for delivery.

Type of Funding:

Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM:

The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity:

The tasked activity is normally the Engineering Change Proposal originator.

Block 7. Implementing Code:

The implementing code for production requirements is the procuring contracting officer. The implementing activity for out of production/retrofit requirements is the cognizant logistics manager.

Key J. Modification/Installation of Basic Kits:

Costs:

If the modification is to be performed by a Navy depot, AIR-410 will be consulted for the most current fully burdened labor rate for the designated facility. If the modification is to be performed by a contractor, refer to form DD 1692-3 block 48b and 48c applicable unit modification cost.

Type of Funding:

Refer to the cognizant requiring financial manager (Modification Management (AIR-410C)) for installations or AIR-08 for source and type of appropriation to be used to fund this element.

Commercial and depot modifications require an entry in the applicable cost line and active (APN-5IF) and reserve (APN-SIR) costs must be identified separately. Modifications to be performed by fleet activities at the Operational and Intermediate level with operating funds and do not require an entry in the applicable cost line.

The quantity of FY modifications identified here must match block J of the Milestone Chart (NAVAIR 4130/3).

RFM:

The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity:

The tasked activity will be the designated maintenance level at which the modification will be accomplished.

Block 7. Implementing Code:

The implementing code for in warranty items is the procuring contracting officer. The implementing activity for out of warranty items is the APML/Logistics Manager. If a NAVAVNDEPOT is to perform the modifications, identify the specific NAVAVNDEPOT.

Key K. Kits for Maintenance Trainers (M/TRANS):

Costs:

FY kit costs are determined utilizing unit prices found in form DD 1692 block 48b. Total kit costs must meet the constraints established in the OSIP budget.

Refer to the applicable column under block 4 of this form to identify the FY quantities of kits and cost element "R" of the Milestone Chart (NAVAIR 4130/3) for FY delivery requirements. The FY kit quantities identified here and the Milestone Chart (NAVAIR 4130/3) must match.

The quantities of FY retrofit kits for maintenance trainers procured are required to project kit inventories, prevent incorporation backlogs, and to ensure coordination of Change Control Board documentation with the OSIP budget.

Type of Funding:

Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM:

The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity:

The tasked activity is generally the maintenance trainer prime contractor or vendor if the kits are subject to open competition or break out.

Block 7. Implementing Code:

The implementing code for in warranty items is the procuring contracting officer. The implementing activity for out of warranty items is PMA205.

Key L. Modification of Maintenance Trainer and Installation of Kits:

Costs: If the modification is to be performed by a NAVAVNDEPOT, Logistics and Maintenance Policy Division (AIR-411), and/or AIR-410C must be consulted for the most current fully burdened labor rate. If the modification is to be performed by a contractor refer to form DD 1692-3 blocks 48b and 48c. Modifications to be performed by Navy Aviation Maintenance Training Group (NAMTRAGRU) will be paid for with operating funds and do not require a cost entry.

Total quantities of maintenance trainer modifications by fiscal year are required to project retrofit kit inventories, prevent modification incorporation backlogs, and ensure coordination of Change Control Board documentation with the OSIP budget. The quantities identified here and Milestone Chart (NAVAIR 4130/3) must match.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund the modification of Maintenance Trainers.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasking Activity: The tasked activity is the designated maintenance level at which the modification will be accomplished.

Block 7. Implementing Code: The implementing code is the cognizant logistics manager if the modification is to be done in conjunction with a weapon system technical directive. PMA205 is the implementing activity for all "trainer only" modifications.

Key M. Kits for Operator Trainers:

Costs: Fiscal kit costs is determined using unit prices found in form DD 1692-3 block 48b. Total costs must meet the constraints established by the applicable 0 budget.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the maintenance trainer prime contractor or vendor if the kits are subject to open competition or break out.

Block 7. Implementing Code: The implementing code is normally the procuring contracting officer for in warranty items. The implementing activity for out of warranty items is normally PMA205.

Key N. Modification of Operator Trainers and Installation of Kits:

Costs: If the modification is to be performed by a contractor refer to form DD 1692-3 blocks 48b and 48c for applicable costs. If the modification is to be performed by a NAVAVNDEPOT, AIR-411, and/or AIR-410C will be consulted for the most current fully burdened labor rate of the designated facility. If modifications are to be performed by NAVTRASYSSEN, costs will be paid with operating funds and will not require an entry in cost line N.

Refer to Milestone Chart (NAVAIR 4130/3) line "N" for quantity of modifications to be performed by FY in which the technical directive is verified.

NAVAIRINST 4130.1C  
31 Jan 92

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the contractor or designated Navy maintenance level at which the modifications will be accomplished.

Block 7. Implementing Code: The implementing code is generally the APML/Logistics Manager if the modifications are to be done in conjunction with the weapon system technical directive. PMA205 is generally the implementing activity for "trainer only" modifications.

Key O. Kits for Spares:

Costs: The total cost for retrofit kits for spares will be used to build the total cost for retrofit kits shown in line "O."

FY kit costs are determined using unit prices identified by form DD 1692-3 block 48c. Total cost must meet constraints established by the OSIP budget.

The quantities of kits for spares identified by line "O" of this form and Milestone Chart (NAVAIR 4130/3) must match.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the ECP originator or vendor is the kits are subject to break out of full and open competition.

Block 7. Implementing Code: The implementing code for in warranty is the Procuring Contracting Officer. The implementing activity for out of warranty items is the supply Policy, Management and Financial Programs Division (AIR-412).

Key P. Modification of Spares and Installation of Kits:

Costs: Fiscal year costs are identified by form DD 1692-3 blocks 48b and 48c.

The quantities of spares modifications on line "P" of this form and Milestone Chart (NAVAIR 4130/3) must match.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the designated Navy maintenance level that will perform the modifications. To facilitate the control of spares modifications by ASO, the organizational level will not be tasked.

Block 7. Implementing Code: The implementing code is normally the cognizant logistics manager.

NAVAIRINST 4130.1C  
31 Jan 92

Key Q. Publications:

Costs: Costs are determined by referring to form DD 1692-3 block 48 entitled Rev. of Tech. Man./ Programming Tapes. Costs for new and updated publications is normally incurred in the first (current) FY.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the Engineering Change Proposal originator.

Block 7: Implementing Code: The implementing activity is normally Naval Air Technical Support Facility (NAVAIRTECHSERVFAC).

Key R. Print/Distribution:

Costs: NAVAIRTECHSERVFAC will provide the cost of publications, printing, and distribution during AIR-04 staffing. These costs are incurred in the FY publications are ordered and average 14 percent of the publications cost shown on line "8" of this form.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund publications printing and distribution.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the Navy Publications and Printing Support Office (NPP80).

Block 7. Implementing Code: The implementing code is normally NAVAIRTECHSERVFAC.

Key S. Technical Directive Print/Distribution:

Costs: Same as "R."

Type of Funding: Same as "R."

RFM: Same as "R."

Block 6. Tasked Activity: Same as "R."

Block 7. Implementing Code: Same as "R."

Key T. Interim Support/Spares:

Costs: Costs for interim spares are identified by form DD 1692-3 block 48c and form DD 1692-2 block 35. Additional requirements or costs for interim spares may be further defined by AIR-412 in conjunction with ASO, during AIR-04 staffing.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the Engineering Change Proposal originator or the vendor that will supply the interim spares.

Block 7. Implementing Code: The implementing code is normally AIR-412.

NAVAIRINST 4130.1C  
31 Jan 92

Key U. New (Supply) Spares:

Costs: This line is for new spare requirement subsequent to the material support date (MSD). Costs are determined utilizing form DD 1692-2 block 35. Further requirements or costs may be defined by the ASO during AIR-04 staffing.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the Engineering Change Proposal originator or vendor of the required spares.

Block 7. Implementing Code: The implementing code for new spares is normally ASO.

Key V. Operator and/or Maintenance Trainers (NEW):

Costs: Costs are determined using form DD 1692-3 block 48c and form DD 1692-2 block 35. Further requirements or cost may be defined by PMA205 during staffing.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund new trainers.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the Engineering Change Proposal

originator or the trainer prime contractor.

Block 7. Implementing Code: The implementing code is normally PMA205.

Key W. Training:

Costs: Costs are determined utilizing form DD 1692-3 block 48c and information referenced in form DD 1692-2 lock 35. PMA205 may further define training requirements and costs during staffing.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally the Engineering Change Proposal originator or trainer prime contractor.

Block 7. Implementing Code: The implementing code is normally PMA205.

Key X. Support Equipment: The total costs for support equipment for each FY requirement should be identified here. Specific quantities and costs are to be broken out of the Support Equipment Requirements Form (NAVAIR 4130/7).

Costs: Costs for new support equipment and nonrecurring engineering is determined using form DD 1692 block 48c and DD 1692-2 block 5. These costs are normally incurred in the FY support equipment is ordered. Additional requirements may be defined by AIR-552 during AIR-04 staffing.

NAVAIRINST 4130.1C  
31 Jan 92

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source and type of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is the Engineering Change Proposal originator or vendor of the support equipment affected.

Block 7. Implementing Code: The implementing code is normally AIR-552.

Key Y. TECHEVAL/OPEVAL: This block must be completed when production approval(s) is required but has not yet been accomplished (i.e. Technical and/or Operational Evaluation) .

Costs: Costs for this effort is not normally identified on the form DD 1692. Such costs will be established by the office of primary responsibility.

Type of Funding: Refer to the cognizant requiring financial manager or AIR-08 for source of appropriation to be used to fund this element.

RFM: The requiring financial manager must initial this block for concurrence in type and amount of funding identified.

Block 6. Tasked Activity: The tasked activity is normally COMOPTEVOR, Norfolk, VA.

Block 7. Implementing Code: The implementing code is normally the office of primary responsibility.

Key Z. Extra Element:

This line may be used to identify an additional change element which may be affected but is not listed.

NOTE: Additional change elements not identified by block 4 may be added after Z (i.e. AA, AB, etc.)

Block 6. Tasked Activity: This block must identify the government and/or contractor activity or code, that is ultimately responsible for final change implementation of each block 4 change element.

Block 7. Implementing Code: This block must identify the government activity or code that has the responsibility and authority for each program requirement. Such activities or codes must generally furnish some type of procurement or funding document to the tasked activities to permit final change implementation. The implementing activity for in production equipment is generally the procurement contracting officer. The implementing activity for out of production equipment or retrofit changes generally the individual code responsible for issuing the procurement and/or funding documents to the tasked activities.

Block 8. This block identifies the name, code, and telephone number of the person who prepared the form and provided space for remarks.

INSTRUCTIONS FOR COMPLETING MILESTONE CHART  
(NAVAIR 4130/3 )

NAVAIR 4130/3 must be used to identify the month(s) in which implementation is required for each change element. The preassigned change element keys appearing on this form correspond and track to those appearing on the Cost and Funding Summary (NAVAIR 4130/2). This form is normally filled out by the assistant program managers for logistics and engineering.

Block 1. Item Affected and OSIP No.: Enter the primary configuration item affected by the proposed change and the OSIP Number (if applicable) which it is executing. Because engine and/or power plant change involving retrofit do not have an assigned OSIP number, insert P (for power plant) - (dash) and FY (the fiscal year) in which the change is approved.

Block 2. Document Tracking Number NAVAIR: Enter the document tracking number from block 4 of the CCB Change Request/Directive (NAVAIR 4130/1).

Block 3. ECP Number: Enter the NAVAIR ECP for RFD, RFW, or RAMEC) number from block 1 of the CCB Change Request/Directive (NAVAIR 4130/1).

Block 4. CCB Number: The Change Control Board number will be assigned by the Change Control Board secretariat after the change has been properly processed following this manual.

Block 5. Change Elements: The change elements which may be affected by the proposed change are identical and track to those appearing on the Cost and Funding Summary (NAVAIR 4130/2).

CCB Approved: This month of Change Control Board approval will be indicated during the Change Control Board meeting for record purposes. This will preclude the need for revising this marker due to delays in processing, etc.

PCO Order Modification Issued: This implementation key identifies the month in which the procurement contracting officer must issue a contract modification (including applicable funding) directing the contractor to incorporate the change. The procurement contracting officer has implementing action for changes that affect production requirements.

ACO Order Modification Issued: This implementing key identifies the month in which the administrative contracting officer (ACO) must issue a contract modification to the contractor. The ACO has implementing action for changes that affect retrofit requirements.

Production Installations: This key identifies the first month production installation is to begin.

31 Jan 92

A. Design/Prototype/Test: This key identifies the timeframe, after contract award, the contractor has to design prototype and test the proposed change. A separate carat must be used to denote the beginning and ending of each event.

B. Validation/Verification: This key must identify the timeframe in which the change kit(s) will be validated and verified. A separate carat is used to denote the beginning and ending of each event. Normally there are two kits procured, one for validation at the Engineering Change Proposal originators facility and another for verification at the fleet or depot level maintenance facility.

C. Drawings: This key must identify the month that new and/or revised drawings resulting from the change will be made available to the government.

D. Technical Directive Prepared: This key must identify the month the formally approved technical directive will be made available.

E. Design Change Notices (DCN's)/Provisioning Data: This key must identify the month in which the final DCN's and provisioning data will be delivered to the provisioning activity responsible for supporting the change.

F. Logistic Support Analysis (LSA)/Maintenance Plans/Support Material List (SML): This key must identify the month when validated, integrated, and design-related engineering and logistics data pertaining to the change will be delivered. A separate carat must be used to show each single event.

G. Operational/Maintenance Trainers: This key must identify the month that requirements for trainers (if required) will be delivered.

H. Government Furnished Equipment (GFE): No entries will be made on this line. Use the form NAVAIR 4130/5 (exhibit 6-9) to show the actual GFE quantities and deliveries per month.

I. Kits/Basic: Fiscal Year (FY) Kit Quantities: Enter each FY in which kits (key I - P) are to be delivered and installed. Up to 2 FY worth of requirements may be identified. Then deliveries for more than 2 FY are planned, additional forms will be used. This key must identify the month when kits for the basic equipment will be delivered for installation. Insert the actual quantity of kits to be delivered each month.

J. Modification/Installation: This key must identify the month when modification installation to the basic equipment will take place. Insert the actual quantity of modifications/installations scheduled per month.

K. Kits/Maintenance Trainers: This key must identify the month when maintenance trainer(s) kits will be delivered. Insert the actual quantity of kits to be delivered each month.

L. Modification/Installation: This key must identify the month when modification to the maintenance trainer(s) will take place. Insert the actual quantity of modifications/installations scheduled per month.

N. Kits/Operational Trainers: This key must identify the month when operational trainer(s) kits will be delivered. Insert the actual quantity of kits scheduled to be delivered each month.

N. Modification/Installation: This key must identify the month when modification to the operational trainer(s) will take place. Insert the actual quantity of modifications/installations scheduled per month.

O. Kits/Spares: This key must identify the month when kits will be delivered as supply system spares by identifying the actual quantity of kits to be delivered each month.

P. Modification/Installation: This key must identify the month when modification to existing spares will take place. Insert the actual quantity of modifications/installations scheduled for month.

Q. Publications: This key must identify the month when publications will become available to the government.

R. Printing/Distribution: This key must identify the month(s) in which publications will be printed and distributed. If not accomplished in the same month, use separate carats to denote each single event.

S. Technical Directive Print/Distribution: This key must identify the month in which the Technical Directive will be printed and distributed in order to accomplish retrofit. The technical directive must be distributed prior to or concurrently with delivery of the retrofit kit(s).

T. Interim Support/Spares: This key must identify the months of planned interim support by identifying the actual quantity of interim spares to be delivered each month.

U. New (Support System) Spares: This key must identify the month in which new supply system spares will be available to support the change. (Post MSD).

V. Operational/Maintenance Trainers (new): This key must identify the months in which new operational/Maintenance trainers (if applicable) will be delivered. Identify actual quantities to be delivered each month.

NAVAIRINST 4130.1C  
31 Jan 92

W. Training: This key must identify the initial month in which training and/or training material and aids will be delivered to government personnel.

X. Support Equipment: This key must identify the scheduled delivery of support equipment by identifying the actual quantities scheduled for delivery per month.

Y. TECHEVAL/OPEVAL: This key identifies when technical evaluation and operational evaluation of the change is to be accomplished. This key also denotes approval for full or limited rate production requirements which must be met prior to actual procurement, installation and use of the change in fleet assets.

Z. Extra Change Element: This key is used to indicate delivery requirements of the added change element(s) once assigned by the Cost and Funding Summary (NAVAIR 4130/2).

NOTE: Additional change elements as identified by the Cost and Funding Summary (NAVAIR 4130/2) must also be included after Key "Z."

REMARKS BLOCK: Self explanatory.

IMPLEMENTING INSTRUCTIONS  
CCB CHANGE DIRECTIVE IMPLEMENTATION FORM  
(NAVAIR 4130/4)

NAVAIR 4130/4 must be used to identify and assign responsibility for all implementing actions resulting from an approved change. The office of primary responsibility is responsible for the completion of this form.

Block 1. Document Tracking Number: Enter the document tracking number from block 4 of the NAVAIR Change Control Board Request/Directive (NAVAIR 4130/1).

Block 2. Change Number: Enter the identification number of the ECP, RFD, RFW, RAMEC, MGFEL etc. from block 1 of the NAVAIR Change Control Board Request/Directive (NAVAIR 4130/1).

Block 3. CCB Number: Enter the Change Control Board number from block 5 of the NAVAIR CCB Change Request/Directive (NAVAIR Form 4130/1).

Block 4. Procurement Document (s) Affected by Change: Identify the affected procurement documents (i.e. contracts, BOA's, procurement requests, etc.).

Block 5. Configuration Items Affected: Identify all configuration items, including trainers, affected by the change by type, model, series, etc.

Block 6. Quantity of Items Affected: Identify the total population of items previously delivered to the fleet including those currently on contract. Identify the quantity of items on contract that are scheduled to get the change in production and the quantity of delivered items that will get the change by retrofit. The quantity of production and retrofit items must match the total population quantity. If not, justification must be provided in block 8 of NAVAIR CCB Request/Directive (NAVAIR 4130/1).

Block 7. Assistant Commander for Contracts (AIR-02): This block assigns implementing actions to the cognizant AIR-02 personnel (procurement contracting officer, contract specialist, etc.). Final implementing actions must be concurred with in block 7a by the cognizant contracting officer.

Block 8. Assistant Commander for Fleet Support and Field Activity Management (AIR-04): This block provides direction and assigns implementing actions to cognizant AIR-04 logistics personnel.

Block 9. Assistant Commander for Systems Engineering (AIR-05): This block assigns implementing actions to cognizant AIR-05 engineering personnel.

Block 10. Production Management Division (AIR-114): This block assigns implementing actions to cognizant AIR-114 personnel.

NAVAIRINST 4130.1C  
31 Jan 92

Block 11. Aviation Training Systems Program Office (PMA205):  
This block assigns implementing actions to PMA205 personnel.

Block 12. Other (OPR, NAVAVNDEPOTOPCEN, NAVAVIONICEN,  
NAVAIRTECHSERVFAC, ASO, etc.): This block assigns implementing  
actions to other cognizant government personnel (i.e. office of  
primary responsibility, Naval Air Warfare Center Aircraft  
Division Indianapolis, Naval Avionics Center, ASO,  
NAVAIRTECHSERVFAC, etc.).

NOTE: Supplemental Implementation Forms may be used if  
additional space is required.



NAVAIRINST 4130.1C  
31 Jan 92

INSTRUCTIONS FOR COMPLETING CCB REQUEST/SUPPLEMENT  
(GOVERNMENT FURNISHED EQUIPMENT REQUIREMENTS FY \_\_\_\_)  
(NAVAIR FORM 4130/5)

NAVAIR 4130/5 must be used to identify all GFE required to support an engineering change when an approved MGFEL is not in effect. A separate form is required for each FY. It is completed by the assistant program managers for logistics and engineering and signed by a designated representative from the cognizant GFE procurement activity.

Block 1. Government Furnished Equipment Requirements (FY- ): Identify the FY appropriation that will be used to procure the GFM.

Block 2. Document Tracking Number: Enter the document tracking number from block 4 of the CCB NAVAIR Change Request/Directive (NAVAIR Form 4130/1).

Block 3. Engineering Change Proposal (ECP) Number: Enter the ECP number exactly as submitted by the Engineering Change Proposal originator.

Block 4. CCB Number: Enter the Change Control Board number from block of the NAVAIR Change Control Board Change Request/Directive (NAVAIR 4130/1).

Block 5. Nomenclature/Part No./National Stock Number (NSN): Enter the proper nomenclature title of each GFE item to be procured and its assigned part number and/or national stock number.

Block 6. Service Identification Number (SIN): Enter the SIN if one has been assigned to the item

Block 7. Action Code (ACT CODE): Enter the office code that has been assigned procurement management responsibility for each item.

Block 8. Type Funds: Enter the type of appropriation (i.e. APN-1 - 7, etc.) which will be used to procure each GFE item.

Block 9. Estimated Unit Cost (EST. U/Cost): Enter the current unit cost of the item. Out year costs should include an economic escalation factor (obtained from AIR-08).

Block 10. Quantity Required: Enter the FY quantity of each item to be procured.

Block 11. Total Cost: Enter the total cost of each item per FY based on estimated unit cost and total quantity to be procured.

Block 12. Delivery Schedule: Identify monthly delivery quantities.

Block 13. Signature: This block is signed by the designated representative from the cognizant procurement activity for certifying the date is accurate and recommending change control approval.

Block 14. Code: Self-explanatory.

Block 15. Telephone: Self-explanatory.

Block 16. Date: Self-explanatory.

NAVAIRINST 4130.1C  
31 Jan 92

MASTER GOVERNMENT FURNISHED EQUIPMENT LIST (MGFEL) CHANGE

1. DOCUMENT TRACKING NO.					2. ECP NO.				3. CCB NO.				
4. MODEL	5. FY	6. SIN NO.	7. PAGE NO.	8. ITEM NO.	9. NOMENCLATURE	10. SPECIFICATION		11. SYS EFF	12. QTY PS	13. TYPE INST	14. UNT WEIGHT	15. LEAD TIME	
						DRAWING NUMBER							
<p style="font-size: 48px; transform: rotate(-45deg); opacity: 0.5;">SAMPLE</p>													
16. REMARKS													
17. SIGNATURE					18. CODE		19. TELEPHONE NO.			20. DATE			

Exhibit 6-10

6-56

INSTRUCTIONS FOR COMPLETING  
MASTER GOVERNMENT FURNISHED EQUIPMENT LIST (MGFEL)  
(NAVAIR 4130/6)

NAVAIR 4130/6 must be used when making changes to a MGFEL to support an engineering change. This form is normally completed by the assistant program manager for systems engineering in conjunction with AIR-114.

Block 1. Document Tracking Number: Enter the document tracking number from block 4 of the NAVAIR CCB Change Request/Directive (NAVAIR 4130/1).

Block 2. ECP No.: Enter the engineering change proposal number as submitted by the originator.

Block 3. CCB No.: Enter the Change Control Board number from block 5 of the NAVAIR CCB Change Request/Directive (NAVAIR 4130/1).

Block 4. Model: Enter the applicable model, type, or series of aircraft or trainer affected by the change.

Block 5. FY: Enter the applicable FY aircraft program affected and/or identified by the MGFEL.

Block 6. SIN No.: Enter the service identification number applicable to the MGFEL item affected.

Block 7. Page No.: If the change affects an existing MGFEL item, enter the applicable MGFEL page number.

Block 8. Item No.: If the change affects an existing MGFEL item, enter the applicable sequence number.

Block 9. Nomenclature: If the change affects an existing MGFEL item enter it's nomenclature as it appears on the MGFEL. If the item is being added for the first time, enter the nomenclature identified by the drawing or controlling specification.

Block 10. Specification Drawing Number: Enter the applicable military specification number or drawing number.

Block 11. System Effectivity (SYS EFF): Enter the production effectivity (BUNO No, Serial No. etc.) of the item(s) identified to get the change.

Block 12. Qty. PS: Enter the quantities of the item required per aircraft installation.

Block 13. Type Inst.: Enter the type of installation that will be accomplished. Type "A" signifies a production installation. Type "B" signifies a field installation.

NAVAIRINST 4130.1C  
31 Jan 92

Block 14. Unit Weight: Enter the item's specified weight.

Block 15. Leadtime: Enter the approved installation leadtime (ILT) for the item.

Remarks: Self explanatory.

Block 16. Signature: A designated representative from AIR-114 must sign the completed form certifying the data is accurate and recommending Change Control Board approval.

Block 17. Code: Self-explanatory.

Block 18. Telephone: Self-explanatory.

Block 19. Date: Self-explanatory.

31 Jan 92

SUPPORT EQUIPMENT REQUIREMENTS										
1. SUPPORT EQUIPMENT AFFECTED (AIR-552) YES <input type="checkbox"/> NO <input type="checkbox"/>										
2. ECP NO.			3. DOCUMENT TRACKING NO.				4. CCB NO.			
5. SE ELEMENTS AFFECTED (AIR-552)			NEW SE ADDITIONAL SE _____			SE CHANGE KITS SEC REQUIRED _____		SUPPORT SOFTWARE CHANGE OTHER _____		
6. COST ELEMENTS	FY ( ) FUNDING			FY ( ) FUNDING			7. TASKED ACTIVITY	8. IMPLEMENT ACTIVITY	9. TYPE FUNDS	10. ADDL FUNDS REQUIRED
	COST	TYPE	RFM	COST	TYPE	RFM				
6a. SE NON-RECURRING (AIR-552)										
ENG DESIGN/DEV/TEST										
TECH DIRECTIVE										
ENG TECH DATA										
6b. SE RECURRING (AIR-552)										
CHANGE KITS										
NEW SE										
ADDITIONAL SE										
6c. SE SUPPORT COSTS (AIR-417 OR AIR-418)										
TD VERIFICATION										
SE TECH PUBLICATIONS										
SE ILS (MAPL TRAINING, FIELD ACT., etc.)										
SE SPARES (INTERIM)										
SE KIT INSTALLS										
SE SPARES (ASO)										
11. NEW/ADDITIONAL SE REQUIREMENTS (AIR-552)					12. SE CHANGE KITS (AIR-552)					
QTY	NOMENCLATURE		PART NO.	TD NO.	CAT	OLD P/N	QTY	TITLE		
13. SIGNATURE (AIR-552)					14. CODE		15. TELEPHONE NO.		16. DATE	
17. SIGNATURE (AIR-417 OR 418)					18. CODE		18. TELEPHONE NO.		20. DATE	
21. REMARKS										

SAMPLE

NAVAIR 41307 (3-92)

Exhibit 6-11  
6-59

NAVAIRINST 4130.1C  
31 Jan 92

INSTRUCTIONS FOR COMPLETING THE  
SUPPORT EQUIPMENT REQUIREMENTS FORM  
(NAVAIR FORM 4130/7)

RESPONSIBILITY. AIR-552, the Support Systems and Logistics Management Division (AIR-417), and/or the Airborne Weapons Division (AIR-418) are responsible for completing this form.

AIR-552: Acquisition for all Support Equipment (SE).  
AIR-417: I for aircraft and component SE.  
AIR-418: I for air launched weapons SE.

PURPOSE. NAVAIR 4130/7 is required for each change request presented to the Change Control Board. When no SE is affected, this form confirms this. When SE is affected, this form is the single summary of all requirements and funding for all affected SE. This summary is derived directly from the Engineering Change Proposal, forms DD 1692-1 through DD 1692-5 as applicable, which details the specific requirements for each affected SE item.

ROUTING. The change request package and the ECP are routed between divisions. The Engineering Change Proposal control point is each division determines specific routing to/from the responsible section within that division.

NOTE: Block 4, CCB No. will be completed by AIR-1006 when the change package is scheduled for the CCB. This form is included in the Change Control Board change package only when SE is affected. Otherwise, the completed form is maintained on file by AIR-552/417/418.

AIR-552 INSTRUCTIONS

Block 1: ECP Affected. If no impact on SE, check NO and proceed to Block 10. If SE is impacted, check YES and proceed to block 2.

Block 2: ECP Number. Enter the Engineering Change Proposal No. exactly as identified on the Engineering Change Proposal form DD 1692 or DD 1693.

Block 3: Document Tracking Number. Enter the document tracking number from NAVAIR CCB Change Request/Directive (NAVAIR 4130/1), Block 4.

Block 4. AIR-1006 will enter the CCB number when presented for CCB scheduling.

Block 5. Cost Elements Affected: Check all categories that apply for all SE affected.

Block 6a. SE Non-Recurring (AIR-552): Transfer data directly from Engineering Change Proposal forms DD 1692-1 through DD 1692-5 as applicable. Enter a total value for each SE cost element. Include associated cost elements listed so that all requirements are transposed from the Engineering Change Proposal to this form.

NOTE: COST is total cost for all quantities. QTY is total quantity for a given year. RFM is Requiring Financial Manager. The RFM is required to initial this block to confirm funds are available for each cost element.

Block 6b. SE Recurring: Transfer data directly from Engineering Change Proposal, forms DD 1691-2 through DD 1692-5 as applicable. Enter a total value for each SE cost element. Include Associated cost elements listed so that all requirements are transposed from the Engineering Change Proposal to this form.

Block 7. Tasked Activity (for blocks 6a and 6b): Enter functional agency or code with primary responsibility for cost elements identified under blocks 6a and 6b.

Block 8. Implementing Activity (for blocks 6a and 6b): Enter the functional agency or code responsible to supply the tasked activity with an implementing document (procurement request, requisition, air task, etc.), before the tasked activity can implement the SE cost elements identified in blocks 6a and 6b.

Block 9. Type Funds (for blocks 6a and 6b): Enter the type of appropriation to be used to fund each of the cost elements identified under blocks 6a and 6b.

Block 10A. Additional Funds Required (for blocks 6a and 6b): Enter total out-year funding requirements for each cost element identified under blocks 6a and 6b.

Block 11. New/Additional SE Requirements: Enter each new and/or additional end item of SE required as identified in the engineering change proposal. If more than two entries are required, identify them on a plain-paper piece of paper and include as an attachment.

Block 12. SE Change kits: Enter each SE change kit required to retrofit existing SE as identified by the engineering change proposal. If more than two entries are required, identify them on a plain piece of paper and include as an attachment.

Block 13. Signature (AIR-552): Responsible person will sign this block certifying SE requirements.

Block 14. Self explanatory.

NAVAIRINST 4130.1C  
31 Jan 92

Block 15. Self explanatory.

Block 16. Self explanatory.

Block 21. Self explanatory.

AIR-417/AIR-418 INSTRUCTIONS

Block 1. SE Affected: If AIR-552 checked NO, and you concur that there is no impact on SE, proceed to block 11. If SE is impacted, proceed to block 3. (See instructions for block 3 through 5 above.)

Block 6c. SE Support Costs: Transfer data directly from Engineering Change Proposal, forms DD 1692-1 through DD 1692-5 as applicable. For each cost element, enter a total value for each SE cost element. Include associated cost elements listed in order for all requirements to be transposed from the Engineering Change Proposal to this form.

NOTE: Cost is total cost for all quantities. QTY is total quantity for a given year. RFM is Requiring Financial Manager. The RFM is required to initial this block to confirm funds are available for each cost element.

Block 7. Tasked Activity (for block 6e): Enter functional agency or code with primary responsibility to deliver each cost element identified under block 6e.

Block 8. Implementing Activity (for block 6c): Enter the functional agency or code responsible to supply the tasked activity with an implementing document (procurement request, requisition, air task, etc.), before the tasked activity can implement the SE cost elements identified in block 6c.

Block 9. Type Funds (for block 6e): Enter the type of appropriation to be used to fund each of the cost elements identified under block 6c.

Block 10. Additional Fund Required (for block 6c): Enter total out-year funding requirements for each cost element identified under block 6e.

Block 17. Signature AIR-417/418: Responsible person will sign this block certifying SE requirements.

Block 18. Self explanatory.

Block 19. Self explanatory.

Block 20. Self explanatory.

Block 21. Self explanatory.

CCB CHANGE REQUEST/DIRECTIVE AIR-04 STAFFING/CONCURRENCE			
1. TITLE OF CHANGE/ITEM AFFECTED	2. DOCUMENT TRACKING NO.	3. CHANGE NO.	
CCB NO.	5. OSIP NO.	6. ENGINEER/CODE	
7. FUNCTIONAL DISCIPLINE	8. DISCIPLINE IMPACTED		9. REMARKS
	YES	NO	
LOGISTICS MANAGEMENT DIVISION (AIR-410)			
LOGISTICS AND MAINTENANCE POLICY DIVISION (AIR-411)			
SUPPLY POLICY, MANAGEMENT AND FINANCIAL PROGRAMS DIVISION (AIR-412)			
SUPPORT SYSTEMS AND LOGISTICS MANAGEMENT DIVISION (AIR-417)			
AIRBORNE WEAPONS LOGISTICS DIVISION (AIR-418)			
PRODUCT SUPPORT, TRANSITION AND FIELD MANAGEMENT DIVISION (AIR-419)			
NAVY RANGES AND FIELD ACTIVITY MANAGEMENT DIVISION (AIR-42)			
AVIATION DEPOT MANAGEMENT DIVISION (AIR-43)			
SUPPORT EQUIPMENT DIVISION (AIR-532)			
AVIATION TRAINING SYSTEMS PROGRAM OFFICE (PMA 205)			
AVIATION SUPPLY OFFICE (ASO)			
NAVAL AIR TECHNICAL SERVICES FACILITY (NATSF)			
10. STAFFING RECOMMENDATION: THE ABOVE STAFFING SATISFIES AIR-04 INTERNAL AND MATRIX SUPPORT STAFFING REQUIREMENTS. APPROVAL ( ) IS / ( ) IS NOT RECOMMENDED.			
11. SIGNATURE	12. CODE	13. TELEPHONE NO.	14. DATE

NAVAIR 4130.1C (2-87)

Exhibit 6-12

INSTRUCTIONS FOR COMPLETING  
CCB CHANGE REQUEST/DIRECTIVE AIR-04 STAFFING/CONCURRENCE FORM  
(NAVAIR 4130/8)

NAVAIR 4130/8 is intended to certify that the proposed engineering change, with regard to AIR-04 requirements, has been properly staffed and concurred with following AIR-04 procedures and is considered ready for Change Control Board approval. The cognizant logistics manager is responsible for determining and coordinating the functional review requirements for each Change Control Board action.

Block 1. Title of Change/Item Affected: Enter the title of the proposed change as submitted by the originator and identify the item affected, if not included in the title.

Block 2. Document Tracking Number: Enter the document tracking number from Block 4 of the NAVAIR CCB Change Request/Directive (NAVAIR 4130/1).

Block 3. Change Number: Enter the identification number of the proposed change as submitted by the originator.

Block 4. CCB Number: Enter the change control board number from block 5 of the NAVAIR CCB Change Request/Directive (NAVAIR 4130/1).

Block 5. OSIP Number: Enter the Operation Safety and Improvement Program number, if any exists, the proposed change will execute. All Class I engineering changed identifying retrofit actions require an approved OSIP except engine and/or power plant changes. For those typed of changed involving retrofit, enter P (for power plant) - (dash) and FY (fiscal year) in which the change is being approved. Enter N/A if the proposed change action is a deviation, waiver, or RAMEC.

Block 6. Engineer/Code: Enter the name and organizational code of the cognizant engineer with whom the proposed change is to be coordinated.

Block 7. Functional Discipline: This block identifies major integrated logistic support disciplines which the proposed change may affect.

Block 8. Discipline Impacted: The cognizant logistics manager will use this block during his initial assessment of the proposed change for determining formal AIR-04 staffing requirements. Check either yes or no for each functional discipline impacted by the change requiring review and concurrence. Block 9 will be used to explain why staffing is not required for a discipline identified as being impacted.

Block 9. Remarks: Self explanatory.

Block 10. Staffing Recommendation: At the conclusion of formal staffing, this block is to be completed and signed by the designated AIR-04 cognizant logistics manager for indicating if Change Control Board approval is or is not recommended.

Block 11. Signature: This block is to be completed by the AIR-04 representative having signature authority for certifying the staffing recommendation provided in block 9.

Block 12. Code: Self explanatory.

Block 13. Telephone Number: Self explanatory.

Block 14. Date: Self explanatory.



INSTRUCTIONS FOR COMPLETING  
CCB CHANGE REQUEST/DIRECTIVE AIR-05 STAFFING/CONCURRENCE FORM  
(NAVAIR 4130/9)

NAVAIR 4130/9 must be used to certify that the proposed engineering change, with regard to AIR-05 requirements, has been properly staffed and/or concurred with following AIR-05 procedures and is considered ready for Change Control Board approval. The cognizant engineer is responsible for determining the functional review requirements for each change control board action.

CLASSIFICATION

Block 1. Title of Change/Item Affected: Enter the title of the proposed change as submitted by the originator and identify the item affected, if not included in the title.

Block 2. Document Tracking No: Enter the document tracking number from block 4 of the CCB Change Request/Directive (NAVAIR 4130/1).

Block 3. Change No: Enter the identification number of the proposed change as submitted by the originator.

Block 4. CCB No: Enter the change control board number from block 5 of the NAVAIR CCB Change Request/Directive (NAVAIR 4130/1).

Block 5. OSIP No: Enter the OSIP number, if any exists, the proposed change will execute. All Class I engineering changes identifying retrofit actions require and approved OSIP except engine and/or power plant changes. For these types of changes involving retrofit, enter P (for power plant) - (dash) and FY (fiscal year) in which the change is approved. Enter N/A if the proposed change action is a deviation, waiver or RAMEC.

Block 6. APML/Code: Enter the name and organizational code of the cognizant logistics manager with whom the proposed change is to be coordinated.

Block 7. Functional Discipline: This block identifies major AIR-05 engineering disciplines which the proposed change may affect.

Block 8. Discipline Impacted: The cognizant engineer should use this block during his/her initial assessment of the proposed change for determining formal AIR-05 staffing requirements. Check either the yes or no block for each functional discipline impacted by the change requiring review and concurrence. Block 9 will be used to explain why staffing is not required for a discipline identified as being impacted.

Block 9. Remarks: Self explanatory.

NAVAIRINST 4130.1C

31 Jan 92

Block 10. Staffing Recommendation: At the conclusion of formal staffing, this block is to be completed by the cognizant engineer for indicating if change control board approval is or is not recommended.

Block 11. Signature: This block is to be completed by the cognizant engineer, or other higher level AIR-05 representative having signature authority, for certifying the staffing recommendation provided in block 10.

Block 12. Code: Self explanatory.

Block 13. Telephone No: Self explanatory.

Block 14. Date: Self explanatory.

6-69

Exhibit 6-14  
6-69

CONTROLLING CUSTO		FP INCORPORATION PLAN	
FROM:		COMPLETE AND RETURN BY:	
TO: COMMANDER NAVAL AIR SYSTEMS COMMAND IAW NAVAL AIR SYSTEMS COMMAND HEADQUARTERS WASHINGTON, D.C. 20331		ICP ORIGINATOR AND NO.	
ICP TITLE			
AIRCRAFT/EQUIPMENT TO BE RETROFITTED		RETROFIT CATEGORY	
		<input type="checkbox"/> IMMEDIATE <input type="checkbox"/> ROUTINE <input type="checkbox"/> URGENT <input type="checkbox"/> RECORD	
ENGINEERING CONTACT (Name, Code, Telephone No.)		LOGISTICS CONTACT (Name, Code, Telephone No.)	
RETROFIT PLAN AND SCHEDULE			
	INCORP. ACTIVITY	INCORP. LEVEL	FY.
			O N D J F M A M J J A S O N D J F M A M J J A S
BASIC EQUIPMENT			
SPARES			
REQUIREMENT FOR ICP	AIRCRAFT/ROP APPLICABILITY	TO CATEGORY	INCORPORATION SCHEDULE
<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR
REMARKS (Continue on reverse if necessary)			
RECOMMENDED VERIFYING ACTIVITY NO.:		<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	PROPOSED ALTERNATIVE
PROJECTED VERIFICATION DATE NO.:		<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	PROPOSED ALTERNATIVE
VERIFYING ACTIVITY POINT OF CONTACT NO.:		<input type="checkbox"/> CONCUR <input type="checkbox"/> NON-CONCUR	PROPOSED ALTERNATIVE
SIGNATURE AND TITLE		CODE	TELEPHONE NO.
			DATE
<small>CONTROLLING CUSTODIANS ARE COMNAVAVRLANT, COMNAVAVRPA, COMNAVAVRESFOR AND COMNAVAIRINST. NAVAIR HQ has established a 10 man-hour limit on fleet incorporation of engineering changes. This criteria is necessary to reduce the backlog of uninstalled kits on area receiving wide Congressional attention. These changes requiring more than 10 man hours will be given careful consideration and should be restricted to SAFETY or URGENT categories. Include justification in Remarks if over 10 man hours.</small>			
NAVAIR FORM 13081/8 (REV 10 84)		PREVIOUS ISSUES OF THIS FORM ARE OBSOLETE	

31 JAN 92

NAVAIRINST 4130.1C  
31 Jan 92

NAVAIRINST 4130.1C  
31 Jan 92

USE/COMPLETION OF THE  
CONTROLLING CUSTODIAN ECP INCORPORATION PLAN  
(NAVAIR 13051/9)

When implementation of a proposed engineering change proposal requires the installation of retrofit kits and modification of delivered equipment, a technical directive (TD) verification program must be developed and coordinated by the cognizant logistics manager. If fleet organizational or intermediate maintenance activities are to perform the installations and/or modifications, the Engineering Change Proposal must first be coordinated with the cognizant type commander(s). The type commander(s) review is normally focused on the additional workload which will be placed on fleet operations and it's capability to incorporate the change in accordance with the proposed schedule. An Engineering Change Proposal incorporation plan (NAVAIR 13051/9) is forwarded describing the Engineering Change Proposal's, application, priority, maintenance level and retrofit schedule. Once the requirements of this form have been evaluated, the type commander will complete and return it to the cognizant logistics manager for inclusion in the formal change package prepared for NAVAIR Change Control Board approval.

CCB SYSTEM SAFETY ASSESSMENT	
1. ECP/ORIGINATOR	2. ECP NO.
3. ECP TITLE:	
4. Safety Problem: (Briefly summarize)	
5. Justification: (Enclosure messages/letters citing accidents, incidents, Quality Deficiency reports, Statistical Data or other impact information.)	
6. Risk Assessment: (See MIL-STD-883C for further information) Check the appropriate Hazard Severity and hazard probability <b>HAZARD SEVERITY:</b> <input checked="" type="checkbox"/> Category I - Catastrophic (Death or System Loss) <input type="checkbox"/> Category II - Critical (Major Injury/Damage) <input type="checkbox"/> Category III - Marginal (Minor Injury/Damage) <b>HAZARD PROBABILITY:</b> <input type="checkbox"/> Continuously experienced in the Fleet <input type="checkbox"/> Occurs frequently in the Fleet <input type="checkbox"/> Occurred several times in the Fleet	
7. Action recommended by the NAVAIR Safety Officer  Upon review of the hazard severity and probability of this safety problem, I recommend the following actions to implement this change.  <input type="checkbox"/> Issue a Bulletin to conduct a one-time inspection and provide interim maintenance action. <input type="checkbox"/> NAVAIR Issue an Interim Technical Directive and Rapid Action Change for technical manuals. <input type="checkbox"/> Hand carry CCB request for approval with all contract actions completed with 90 days. <input type="checkbox"/> Other: _____ (provide interim maintenance action).	
8. SIGNATURE	9. DATE

31 Jan 92

# ECP PROCESS AT NAVAL AIR SYSTEMS COMMAND

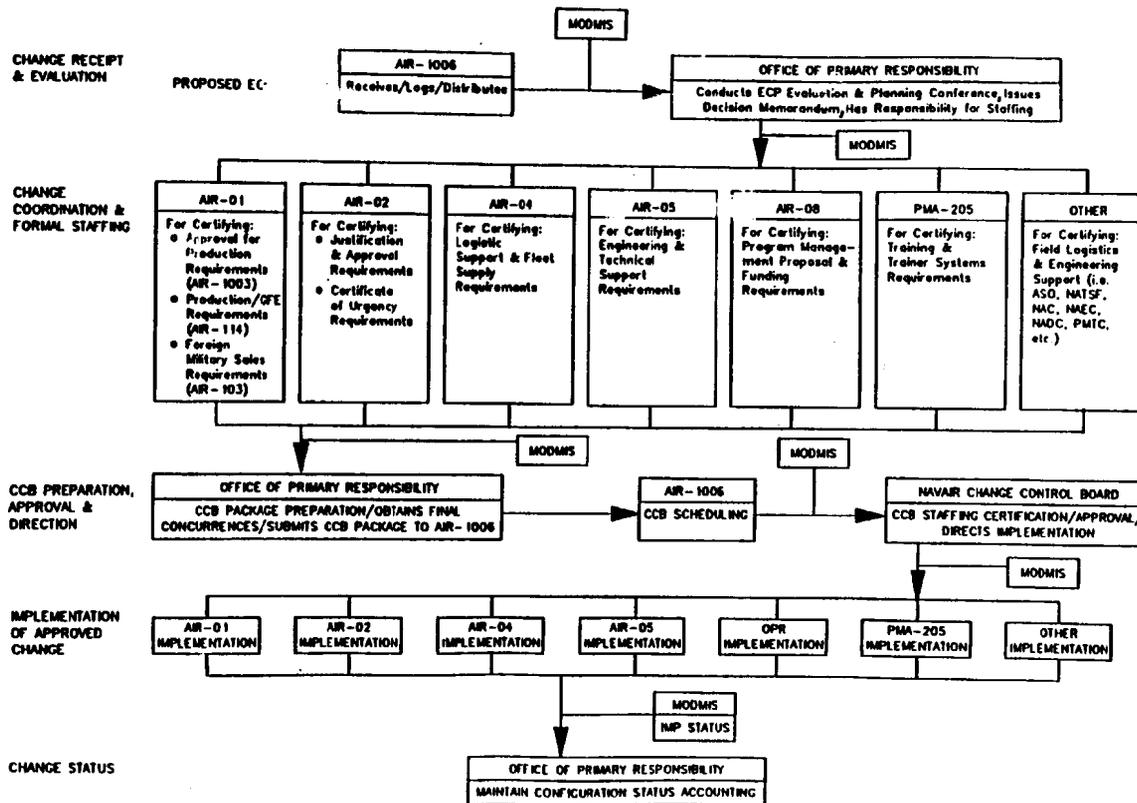


Exhibit 6-16  
6-72

6722

NAVAIRINST 4130.1C  
31 Jan 92

NAVAIRINST 4130.1C  
31 Jan 92

EXHIBIT 6-17

SAMPLE  
CONTROLLING CUSTODIAN (TYCOM) ECP COORDINATION LETTER

13051  
Ser AIR-XXXXX/XXX

From: Commander, Naval Air Systems Command  
To:

Subj: TYPE COMMAND (TYCOM) ENGINEERING CHANGE PROPOSAL (ECP)  
COORDINATION

Encl: (1) (Preparing Activity) ECP Number  
(2) TYCOM ECP Coordination Form (NAVAIR 13051/9)

1. Enclosure (1) describes a modification program recommended for incorporation at the fleet maintenance level. It is requested that enclosure (1) be reviewed, and enclosure (2) completed. Particular emphasis should be directed toward the following:

- a. Maintenance level.
- b. Man-hours.
- c. Technical Directive category.
- d. Schedule.

2. An expeditious response would be appreciated since the Program Manager has scheduled this ECP for Presentation at the Change Control Board (CCB) on\_\_\_\_\_.

---

Signature

EXHIBIT 6-18

HAND CARRY APPROVAL STAFFING SHEET

NOTE: Hand carry actions must be completed within 2 working days. If it will take longer, AIR-1006 will be immediately notified.

CLASSIFICATION: \_\_\_\_\_

SIGNATURES OF CONCURRENCE AND APPROVAL MUST ALSO BE AFFIXED TO THE ORIGINAL CCB CHANGE REQUEST/DIRECTLY USING BLACK INK. ANY CHANGE TO THE CCB CHANGE REQUEST/DIRECTIVE MUST BE IDENTIFIED BY CODE AND INITIALED.

1. CCB Chairman (AIR-1006) For authorization to hand carry CCB Request/Directive for approval.

.....  
signature / date

2. CCB Voting Member (AIR-05) All technical matters under the cognizance of AIR-05 have been sufficiently staffed and are concurred with. Recommend final approval of this change, with not further AIR-05 staffing.

.....  
signature / date

3. CCB Voting Member (AIR-114) All technical matters regarding production effectivity/GFE/MGFEL have been sufficiently staffed and are concurred with. Recommend final approval of this change with no further AIR-114 staffing.

.....  
signature / date

4. CCB Chairman (AIR-1006) All technical matters under the cognizance of AIR-04 have been sufficiently staffed and are concurred with. Recommend final approved of this change with no further AIR-04 staffing.

.....  
signature / date

5. CCB Voting Member (PMS 205) All training matters under the cognizance of PMA 205 have been

sufficiently staffed and are concurred with. Recommend final approval of this change with no further PMA 205 staffing.

.....  
signature / date

6. Contracts Division (AIR-211) All contractual matters have been sufficiently staffed and are concurred with. Recommend final approval of this change with no further AIR-02 staffing.

.....  
signature / date

7. Program and Budget Policy PMP requirements for this (AIR-08P) change and Support Division have been satisfied.

.....  
signature / date

8. Automatic Systems Analysis Approval for production and Support Branch requirements for this change (AIR-1003) have been satisfied. I recommend final approval of this change.

.....  
signature / date

9. CCB Chairman (AIR-1006) The CCB Change Request/Directive is approved.

.....  
signature / date

AFTER IT IS APPROVED BY THE CCB CHAIRMAN, THE SPONSOR WILL MAKE COPIES OF THE APPROVED CCB CHANGE REQUEST/DIRECTIVE AND DELIVER TO THE OFFICES RESPONSIBLE FOR IMPLEMENTATION. THE SPONSOR WILL RETURN THE ORIGINAL SIGNED CCB CHANGE REQUEST/DIRECTIVE ORIGINAL TO THE CCB SECRETARIAT (AIR-1006).

EXHIBIT 6-19

SAMPLE  
ENGINEERING CHANGE PROPOSAL APPROVAL NOTIFICATION LETTER

4330  
PMA295/071191

Boeing Aircraft Company  
P. O. Box 1000  
Wichita, Kansas 67277

VIA: Administrative Contracting Officer Defense Plant  
Representative Office  
P. O. Box 1000  
Wichita, Kansas 67277

Gentlemen:

This letter is notification that your engineering change proposal (ECP) number 100-06 (installation of Global Positioning System), as submitted by Boeing letter T-9OMB-01 on 15 June 1991 was approved by the NAVAIR Change Control Board, on 28 August 1991.

This letter is forwarded for your information only. It does not authorize incorporation of the above ECP nor any change to the contract price, terms or conditions of contract N00019-88-0300.

---

/signature

Copy to:  
BMA Wichita (F. Cox, S. Thuma)

CHAPTER VII

CONFIGURATION STATUS ACCOUNTING

7. CONFIGURATION STATUS ACCOUNTING

7.1 DEFINITION OF CONFIGURATION STATUS ACCOUNTING. Configuration status accounting is the reporting and recording of the implementation of changes to an item's configuration identification.

7.2 PURPOSE OF CONFIGURATION STATUS ACCOUNTING. The purpose of configuration status accounting is to:

a. Assist the office of primary responsibility in the management of the acquisition process, including design development, technical reviews, configuration audits, tests and evaluation, production, and planned integrated logistic support.

b. Provides current change implementation status.

c. Allows accurate and expeditious updating of the current configuration identification of an item for assuring adequate support.

7.3 IMPLEMENTATION OF CONFIGURATION STATUS ACCOUNTING

7.3.1 The office of primary responsibility will ensure that the configuration status accounting data necessary to manage configuration identification effectively is reported and recorded during all acquisition phases in a structure or format consistent with MIL-STD-482B and this manual.

7.3.2 Data Item Description (DI-E-2039) will be invoked as a technical data requirement for configuration status accounting reports in all PEO/NAVAIR contracts.

7.4 MISSION ESSENTIAL SUBSYSTEMS MATRICES. The office of primary responsibility will ensure that the Mission Essential Subsystems Matrices established for each model, type, or series of aircraft are updated within 30 days of approval of an engineering change.

7.5 JOINT SERVICE PROGRAMS. A NAVAIR office of primary responsibility participating in joint service programs will maintain configuration status accounting following the mutual configuration management plans and/or agreements approved for those programs.

NAVAIRINST 4130.1C

31 Jan 92

7.6 TECHNICAL DIRECTIVE STATUS ACCOUNTING. The Technical Directive Status Accounting (TDSA) Program, which is managed by the Naval Aviation Maintenance Office (NAVAVNMAINTOFF), gathers data on technical directive application and incorporation status as related to aircraft, engines, support equipment, maintenance trainers, and serial numbered weapon system components. The TDSA data base is updated daily with technical directive compliance reports generated by the fleet. For additional information see NAVAIR Installation 5215.12, NAVAIR Technical Directives System.

APPENDIX A

DEFINITIONS

1. Baseline. A configuration identification document or a set of documents formally designated and fixed at a specific time during a configuration item's (CI's) life cycle. Baselines, plus approved changes from those baselines, constitute the current configuration identification.
2. Change Control Board (CCB). An organization of highly qualified and experienced technical and administrative personnel responsible for reviewing, evaluating, and approving proposed changes to configuration items.
3. Code Identification Number. A five-digit number listed in the Defense Logistic (DLA) Cataloging Handbook H4/H8, Commercial and Government Entity Code (CAGE) code, which is assigned to activities that manufacture or develop items for the Federal Government. When used with an ECP number, the code identification (manufacturer's code) designates the contractor or government agency from whose series the ECP number is assigned. When used with a drawing number or part number, the code identification number designates the design activity from whose series the drawing or part number is assigned.
4. Configuration. The functional and/or physical characteristics of hardware/software in technical documentation and achieved in a product.
5. Configuration Control. The systematic evaluation, coordination, approval or disapproval of proposed changes, and the implementation of all approved changes to the configuration of a CI after formal establishment of its configuration identification.
6. Configuration Identification. The current approved or conditionally approved technical documentation for a configuration item in specifications, drawings, and associated lists and documents.
7. Configuration Item (CI). An aggregation of hardware/software, or any of its discrete components, which satisfies an end use function and is designated by the Government for configuration management. CI's may vary widely in complexity, size, and type, from an aircraft, electronic, or ship system to a test meter or round of ammunition. During development and initial production, CI's are only those specification items that are referenced directly in a contract (or an equivalent in-house agreement). During the operation and maintenance period, any repairable item designated for separate procurement is a configuration item.

31 Jan 92

8. Configuration Management (CM). A discipline applying technical and administrative direction and surveillance to (1) identify and document the functional and physical characteristics of a configuration item; (2) control changes to those characteristics; and (3) record and report change processing and implementation status.

9. Configuration Status Accounting (CSA). The recording and reporting of information needed to manage configuration effectively, including a listing of the approved configuration identification, the status of proposed changes to configuration, and the implementation status of approved changes.

10. Contract. The legal agreement between the Department of Defense (DOD) and industry, or similar internal agreement wholly within the Government, for the development, production, maintenance, or modification of an item(s).

11. Contractor. An individual, partnership, company, corporation, or association having a contract with a government procuring activity for the design, development, design and manufacture, manufacture, maintenance, modification, or supply of items under the terms of a contract. A government activity performing any or all of the above actions is considered to be contractor for CM purposes.

12. Contractor Furnished Equipment (CFE). An item manufactured or purchased by the contractor for inclusion in or support of the system/equipment.

13. Cost. The term "cost" means cost to the Government.

a. Nonrecurring Costs. -time costs which will be incurred if an engineering change is ordered and which are independent of the quality of changes, such as cost of redesign, special tooling, or qualification.

b. Recurring Costs. Costs which are incurred for each item changed or for each service or document ordered.

14. Critical Item. An item within a CI which, because of special engineering or logistic considerations, requires an approved specification to establish technical or inventory control at the component level. (Also known as selected item.)

15. Data (Technical Data and Information). The method for communication of concepts, plans, descriptions, requirements, and instructions relating to technical projects, material, systems, and services. These may include specifications, standards, engineering drawings, associated lists, manuals, and reports including scientific and technical reports: they may be in the form of documents, displays, sound records, punched cards, and digital or analog data.

16. Deficiencies. Deficiencies consist of two types: (1) conditions or characteristics in any hardware/software which are not in compliance with specified configuration, or (2) inadequate (or erroneous) configuration identification which has resulted, or may result, in configuration items that do not fulfill approved operational requirements.

17. Design Change. A government approved engineering change to be incorporated into the end item which modifies, adds to, deletes, or supersedes parts in the end item.

18. Design Change Notice (DCN). A DCN is a document prepared by a contractor or naval aviation depot to notify the provisioning activity of an approved design change.

19. Deviation. A specific written authorization, granted prior to the manufacture of an item, to depart from a particular performance or design requirement of a specification, drawing, or other document for a specific number of units or a specific period of time. A deviation differs from an engineering change in that an approved engineering change requires corresponding revision of the documentation defining the affected item, whereas a deviation does not contemplate revision of the applicable specification or drawing (see MIL-STD-480B).

20. Engineering Change. An alteration in the configuration of an item after formal establishment of its configuration identification.

21. Engineering Change Priorities. The rank assigned to a Class I engineering change which determines the methods and resources to be used in review, approval, and implementation (see MIL-STD-480B).

22. Engineering Change Proposal (ECP). A term which includes both a proposed engineering change and the documentation by which the change is described and suggested (See MIL-STD-480B).

23. ECP Types. A term covering the submission of ECP's on the basis of the completeness of the available information delineating and defining the engineering change (see MIL-STD-480B).

a. Preliminary ECP (Type P). A preliminary ECP is the type of engineering change proposal which may be submitted to the Government for review prior to the availability of the information necessary to support a formal ECP.

b. Formal ECP (Type F). A formal ECP is the type of engineering change proposal which provides engineering information and other data in sufficient detail to support formal change approval and contractual authorization, and which may follow the submittal of a preliminary ECP.

31 Jan 92

24. Functional Characteristics. Quantitative performance, operating and logistic parameters, and their respective tolerances. Functional characteristics include all performance parameters, such as range, speed, lethality, reliability, maintainability, and safety.
25. Functional Configuration Audit (FCA). The formal examination of functional characteristics' test data for a configuration item, prior to acceptance, to verify that the item has achieved the performance specified in its functional or allocated configuration identification. See MIL-STD-1521B.
26. Functional Configuration Identification (FCI). The current approved technical documentation for a CI which prescribes (1) all necessary functional characteristics; (2) the tests required to demonstrate achievement of specified functional characteristics; (3) the necessary interface characteristics with associated CI's; (4) the CI's key functional characteristics and its key lower level CI's; if any, and (5) design constraints, such as envelope dimensions, component standardization, use of inventory items, integrated logistics support policies.
27. Government Furnished Equipment (GFE) Government Furnished Property (GFP). Property in the possession or acquired by the Government and subsequently delivered or otherwise made available to the contractor.
28. Hardware/Software. Hardware or software (programs), or a combination of both, in which the software includes only that associated with hardware for operational use, e.g., computer programs for command and control handbooks for operations, maintenance, etc., and exclude fabrication specifications, drawings, etc.
29. Integrated Logistic Support (ILS). A composite of the elements necessary to assure the effective and economical support of a system or equipment at all levels of maintenance for its programmed life cycle. The elements include all resources necessary to maintain and operate an equipment or weapons system, and are categorized as follows: (1) planned maintenance, (2) logistic support personnel, (3) technical logistic data and information, (4) support equipment, (5) spares and repair parts, (6) facilities, and (7) contract maintenance.
30. Item. (When the term is used without a modifier.) Any level of hardware assembly below a system; i.e., subsystem, equipment, component, subassembly, or part. Also see "configuration item," "critical item," and "privately developed item."
31. Non-Developmental Item (NDI). Non-developmental items are existing developed and available hardware or software that are capable of fulfilling DOD requirements, thereby minimizing or eliminating the need for costly, Government-sponsored research and development (R&D) program. An NDI is usually an off-the-shelf or commercial-type product, but may also include hardware or

software already developed by or for the DOD, or other military services or foreign military forces.

32. Notice of Revision (NOR). A form (DD 1695) used to propose revisions to a drawing or list, and, after approval, to notify users that the drawing or list has been, or will be, revised accordingly (see MIL-STD-480B).

33. Original (Master) Drawing. The initial drawing, or copy thereof, on which is kept the revision record recognized as official by the design activity.

34. Office of Primary Responsibility. As used in this document, includes the program manager, assistant program coordinator, weapon system manager, or acquisition manager, as applicable.

35. Physical Characteristics. Quantitative and qualitative expressions of material features, such as composition, dimensions, finishes, form, fit, and their respective tolerances.

36. Physical Configuration Audit (PCA). The formal examination of the "as-built" configuration of a unit of a CI against its technical documentation in order to establish the CI's initial product configuration identification.  
See MIL-STD-1521B.

37. Privately Developed Item. An item completely developed at private expense and offered to the Government as a production article, with government control of the article's configuration normally limited to its form, fit, and function.

38. Product Configuration Identification (PCI). The current approved or conditionally approved technical documentation which defines the configuration of a CI during the production, operation, maintenance, and logistic support phases of its life cycle, and which prescribes (1) all necessary physical or form, fit and function characteristics of a CI; (2) the selected functional characteristics designated for production acceptance testing; and (3) the production acceptance tests.

39. Repair. The process of restoring an item to its original configuration except for parts substitution of non-repairable parts as authorized by MIL-STD-480B.

40. Retrofit. Incorporation of an engineering change (at any level) in accepted or in-service items.

31 Jan 92

41. Serial Number. A number assigned by the manufacturer which specifically identifies each unit of a mission design series.
42. Software. A combination of associated computer programs and computer data required to enable the computer hardware to perform computational or control functions. NOTE: This definition includes firmware within its applicability.
43. Spares and Repair Parts. Spares are components or assemblies used for maintenance replacement purposes in major end items of equipment. Repair parts are those bits and pieces; e.g., individual parts or nonrepairable assemblies, required for the repair of spares or major end items.
44. Specification. A document intended primarily for use in procurement which clearly and accurately describes the essential technical requirements for items, materials, or services, including the procedures by which it will be determined that the requirements have been attained (see MIL-STD-490A).
45. Specification Change Notice (SCN). A document used to propose, transmit, and record changes to a specification. In proposed form, prior to approval, the SCN (P) supplies proposed changes in the text of each page affected (see MIL-STD-480B).
46. Subcontractor. A subcontractor is an individual, partnership, corporation, or association, that contracts with a contractor to design, develop, design and manufacture, manufacture items, which are, or were, cosigned specifically for use in a military application.
47. Support Equipment (SE). Support equipment is that equipment required to make an item, system, or facility operational in its intended environment. This includes all equipment required to maintain and operate the item, system, or facility, including computer related programs.
48. System. a composite of systems, assemblies (or sets), skills, and technique capable of performing and/or supporting an operational (or non-operational) role. A complete system includes related facilities, items, material, services, and personnel required for its operation to the degree that it can be considered a self-sufficient item in its intended operational (or nonoperational), and Support environment.
49. Tailoring. The process by which individual requirements (sections, paragraphs, or sentences) of a specification, standard, or a requirement are evaluated to determine the extent to which they are most suitable for a specific system, and the modification or deletion of of some requirements to ensure that each achieved an optimal balance between operational needs and cost.
50. Technical Data. Recorded information related to experimental, developmental, or engineering works that can be

used to define an engineering or manufacturing process or to design, procure, support, maintain, operate, repair, or overhaul material. The data may be graphic or pictorial delineations in media such as drawings or photographs, test in specifications or related performance or design type documents, or computer printouts. Examples of technical data include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information and computer software documentation.

51. Validation. The process by which the preparing activity tests a technical directive for accuracy and adequacy.

52. Value Engineering Change Proposal (VECP). A change proposal that proposes a net life cycle costs reduction to the Department of Defense.

53. Verification. The process by which a naval activity tests a proposed technical directive for accuracy and adequacy.

54. Waiver. A written authorization to accept a configuration item or other designated items, which, during manufacture or after have been submitted for inspection, are found to report from specified requirements, but are considered suitable for use or after rework by an approved method.

55. Work Breakdown Structure. A product oriented family tree, composed of hardware, software, services, and other work tasks, which results from project engineering effort during the development and production of a defense material item, and which completely defines the project/program. A work breakdown structure displays and defines the product(s) to be developed or produced and relates the elements of work to be accomplished to each other and to the end product (MIL-STD-881).

NOTE: The following definitions are peculiar to NAVAIR:

56. Integrated Configuration List (ICL). The ICL represents the initial product base line or the weapon system or major equipment and provides a complete indentured listing of the prime end items and applicable support equipment items for all contractor and government furnished equipment down to the lowest repairable assembly level. It will include, if specified in the contract, selected nonrepairable assembled requiring configuration reporting.

57. Serial Number Configuration List (SNCL). The SNCL is a two-part document in the same format as the ICL, and is prepared by the prime contractor for each aircraft/weapon system delivered to the Navy. Part I of the SNCL will be developed by the contractor. Part I will list, by serial number, Navy selected items requiring special management attention and the serial number of the aircraft or weapon system in which they were installed. Part II lists the differences between an aircraft or weapon system at the time it is to be contractually accepted and the current ICL.

58. Baseline Data Record. A record consisting of engineering drawings, specifications, and associated data and publications. This data identifies the weapon system, subsystem, or components to a degree that reprourement can be initiated from these data records and/or an ICL, SNCL can be produced.

59. Summary Listing of ECP's. A record of all ECP's submitted to NAVAIR, including the status of each ECP from the time of receipt to CCB action, including implementation action.

60. Technical Directive (TD) Index. A record of all TD's by weapon system, or commodity from the date the TD number is assigned until the TD is rescinded or cancelled.

61. Technical Directive Compliance Status Reports. A series of reports that records the compliance status of all formal and interim changes in the NAVAIR system, including kits, material, and man-hour information

62. Data Element. a grouping of informational units that has a unique meaning and subcategories (data items) of distinct units or values (MIL-STD-482A).

63. Engineering Change Incorporation by Attrition. The routing replacement of a part or subassembly with a different part or subassembly when replacement is required. The original part of subassembly will be used until current stocks are exhausted. A TD is not normally required.

64. Engineering Change Incorporation by Retrofit. Is the directed replacement of a part or set of parts by an improved part or set of parts (retrofit kits) which are to be installed in the equipment or item over a predetermined time span and rate regardless of the present equipment condition. The original part

NAVAIRINST 4130.1C

31 Jan 92

or set of parts will be purged from the supply system or diverted to other requirements. A Technical Directive is required.

APPENDIX B

CONFIGURATION MANAGEMENT RELATED DOCUMENTS

AD-1350A	Engineering Drawings and Associated Data
AR-41	Technical Directive Development and Acquisition of Integrated Logistic Support for Aeronautical Weapon System Changes
DOD-STD-100C	Engineering Drawing Practices
MIL-STD-480B	Configuration Control - Engineering Changes, Deviations, and Waivers
MIL-STD-481B	Configuration Control - Engineering Changes, Deviations, and Waivers (Short Form)
MIL-STD-482A	Configuration Status Accounting Data Elements and Related Features
MIL-STD-483	Configuration Management Practices for Systems, Equipment, Munitions, and Computer Programs
MIL-STD-490A	Specification Practices
DOD-STD-2167	Defense System Software Development
DOD-D-1000B	Drawings, Engineering, and Associated Lists
MIL-D-81992	Directive Technical: Preparation of
MIL-I-8500	Interchangeability and Replaceability of Component Parts for Aircraft and Missiles
MIL-I-8651	Identification and Modification (for Aircraft) Installation of
MIL-M-9868	Microfilming of Engineering Documents, 35MM
MIL-M-38761	Microfilm, Aperture Cards, and Tabulating Cards used for Recording Engineering Drawings and Associated Data
MIL-N-18307G	Nomenclature and Identification for Aeronautical, Electronic, and Associated Equipment
MIL-P-15024	Plate, Tags and Bands for Identification of Equipment

NAVAIRINST 4130.1C  
31 Jan 92

MIL-S-83490	Specification, Types and Forms
MIL-STD-12	Abbreviations for Use on Drawings, Specifications, Standards and in Technical Documents
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-130F	Identification Marking of U.S. Military Property
MIL-STD-280A	Definitions of Item Levels, Item Exchangeability, Models and Related Terms
MIL-STD-780	Work Unit Codes for Aeronautical Equipment, Uniform Numbering System
MIL-STD-875	Type Designation System for Aeronautical and Support Equipment
MIL-STD-882	System Safety Program Requirements
MIL-STD-961C	Preparation of Military Specifications and Associated Documents
MIL-STD-1456A	Government and Contractor Configuration Management Plans
MIL-STD-1520C	Corrective Action and Disposition System for Non-Conforming Material
MIL-STD-1521B	Technical Reviews and Audits for Systems, Equipment, and Computer Programs
MIL-STD-2076	Unit Under Test Compatibility with Automatic Test Equipment, General Requirements for
NAVAIRINST 4120.3B	Engineering Drawing Numbering System
NAVAIRINST 4120.4A	Delegation of Authority for the Authentication of NAVAIR Engineering Drawings and Associates Lists
NAVAIRINST 4200.21A	Establishment of the Naval Air Systems Command Headquarters Data Requirements Review Board
NAVAIRINST 4275.3F	Implementation of Configuration Control MIL-STD-480B, and MIL-STD-481
NAVAIRINST 4720.6A	Operational, Safety, and Improvement Program Budget Procedures

NAVAIRINST 4341.4	Government Furnished Equipment (GFE) Management in the Naval Air Systems Command
NAVAIRINST 5030.5B	Policy and Responsibilities for the Assignment of Nomenclature, Serial Numbers, Prefix Letters, and Identification Marking of NAVAIR Electronic, Aeronautical and Aeronautical Support Equipment
NAVAIRINST 5200.22B	Contract Data Requirements List (DD Form 1423)
NAVAIRINST 5215.12	Naval Air Systems Command Technical Directive System
NAVAIRINST 5215.10D	Policy, Procedures, and Responsibilities for Processing Rapid Action Minor Engineering Changes
NAVAIRINST 5230.9	Policy and Procedures for establishment and operation of NAVAIRSYSCOM Systems Software Support Activities
NAVAIRINST 5600.23	Policy, Procedures, and Responsibilities for Technical Rapid Action Change Program
NAVAIRINST 5605.3C	Procedures for the Distribution of Technical Directives, including Rapid Action Minor Engineering Changes to Foreign Governments
OPNAVINST 5200.28	Life Cycle Management of Mission-Critical Computer Resources for Navy Systems Management under the Research, Development, and Acquisition Process.

NAVAIRINST 4130.1C  
31 Jan 92

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APPENDIX C

GUIDANCE FOR PROCESSING CLASS I ECP'S, RAMEC'S AND MAJOR  
DEVIATIONS AND WAIVERS FOR FIELD MANAGED (TRANSITIONED) PROGRAMS

1. Purpose. To provide guidance and procedures for the processing of Class I ECP's and major deviations and waivers for field managed programs.
2. Background. This guidance is provided to assist NAVAIR field activities in the processing of Class I ECP's and major deviations and waivers against fielded and/or transitioned items. A configuration management plan will be prepared following Chapter II of this manual. It must clearly define overall staffing requirements and responsibilities of both the field and NAVAIR to avoid any unnecessary or redundant staffing of a proposed change, once submitted to NAVAIR for approval. Close coordination must take place between cognizant field activities and the NAVAIR Product Support and Transitioned Field Management Division (AIR-419).
3. Scope. These procedures apply to all NAVAIR cognizant field activities which have design and configuration management responsibility. It also applies to inventory control points for coordination and follow-on logistics support.
4. Policy. In addition to the requirements of MIL-STD-480B, cognizant field activities are required to develop a reprourement strategy that allows the inventory control point to procure the modified or replacement item of supply. This reprourement strategy will be submitted to the NAVAIR Change Control Board as an attachment to the formal Change Control Board Request/Directive. Any Change Control Board Request/ Directive generated by a cognizant field activity, which is submitted without this attachment, will not be accepted by the Change Control Board secretariat
5. Procedures
  - a. Develop the reprourement strategy. If the cognizant field activity does not have an approved reprourement strategy for the configuration item, coordination meetings must be held with the inventory control points to develop one. The following narrative will be used as a guideline for developing a reprourement strategy.
    - (1) Need for change identified. This step is self--explanatory and the purpose for beginning the ECP process.
    - (2) Determine present means of acquisition. When needed, how is the item acquired? For example, it can be manufactured or assembled at a depot or procured by an ICP and placed in stock.

(3) Procurable item affected. If no, proceed with ECP process. If yes, proceed to next step.

(4) Prime/Original Equipment Manufacture Participation Solicitation. In all cases the original design agent or current source of supply should be solicited to participate in the proposed change.

(5) Concur. If the Prime/OEM concurs with the proposed CFA change, proceed to the next step. If they do not concur proceed to step (10).

(6) Economically Beneficial. If the Prime/OEM cost proposal to support the change economically beneficial? If the answer is yes, proceed to the next step. If no, proceed to step (10).

(7) Contract Initiated. Change coordinated with Prime/OEM. Proceed to next step.

(8) Prime Initiate Change. Per DOD-STD-480. Proceed to next step.

(9) Proceed with ECP Process. This step is the final step in the decision process regardless of the approach taken.

The second scenario is as follows:

(10) Determine Acquisition Netnoa Code (AMC). At this point the CFA must determine how the ICP procures the item under review. This can be accomplished by interrogating the Navy Aviation Supply Office (ASO) Master Information File (MIF), by using a BK retrieval and reviewing the AMC (Data Element Number D025E), and the Acquisition Method Suffix Code (AMSC) (Data Element Number D025F). Another way to ascertain how an item is procured is to contact ASO code WSS-03 on autovon 442-3695 or commercial 215-697-3695. State the item affected by National Stock Number (NSN) or manufacturer's N and Commercial/Government Entity Code (CAGE). Once the method of acquisition has been determined, proceed to the next step.

(11) Item procured competitively? If yes, the CFA can develop a Navy technical data package to supplement the original technical data package.

(12) CGA Generated Technical Data Package (TDP). The technical data package which now has the CFA assigned part number as the top drawing, and is comprised of the original design agent and CFA drawings, will now be used to competitively procure the latest item of supply. Proceed to step (9).

(13) Can Data be Acquired? If yes, go back to step (11) and proceed. If no, proceed to Step (14).

(14) Procure Item For CFA Modification. The ICP will procure the required item from existing sources of supply. The items will then be shipped to the appropriate CFA for modification and reidentification. The item will then be repackaged and placed in the supply system. It should be noted that this procedure is to be used only after all other methods of acquisition have been exhausted.

b. Prepare the Change Control Board Change Request forms following this instruction. Using the Class I ECP, write a decision memorandum including cost and funding data. Distribute the decision memorandum to the engineer, logistics manager and procurement office at the field activity and appropriate NAVAIR codes. As a minimum, the following NAVAIR codes should receive a copy of the decision memorandum: AIR-419, AIR-08P, AIR-410C, AIR-1006, AIR-1003, and AIR-411. Staffing of the change request/directive forms will be by the applicable office of primary responsibility configuration plan approved by AIR-100. When inputs from all action codes have been received, complete the change request package including required chops and signatures, and forward the completed package to NAVAIRHQ (AIR-419), or the designated NAVAIRHQ point of contact for the configuration item.

c. The NAVAIRHQ point of contact for the configuration item is responsible for obtaining the required headquarters chops, forwarding the change control request package to AIR-1006 for change control board scheduling, and for briefing the change to the change control board. The cognizant field, in conjunction with AIR-413, is responsible for tracking and expediting the processing of the change package.

d. Upon approval of the change by the NAVAIR change control board, the cognizant field activity, in conjunction with AIR-419, is responsible for managing and tracking the implementation actions directed by the change control board. Any deviation from the directed actions must be reported to and approved by the change control board chairman. The cognizant field activity must also ensure that completed actions are reflected in the NAVAIR MODMIS tracking system.

NAVAIRINST 4130.1C  
31 Jan 92

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APPENDIX D

CONFIGURATION MANAGEMENT OF MISSION-CRITICAL COMPUTER SOFTWARE

1. Background. The control functions of today's weapon systems have been enhanced by the introduction of digital computer technology. Inherent in the use of digital computers is the ability to change system operational capability by modification of the computer software programs alone. The relative ease with which Mission-Critical Computer Software (MCCS) changes can be effected (compared to hardware modifications) provides a high degree of flexibility in responding to fleet requirements. This ease of change requires a responsive software Configuration Management (CM) organization with the operational and technical knowledge to evaluate proposed changes to ensure expeditious implementation for fleet support.

a. DoD Directive 5000.2 promulgates the responsibilities of naval systems commanders and program managers (PM's) for CM of Mission-Critical Computer Software associated with weapon systems.

b. The Avionics and Computer Resources Division (AIR-516) establishes the procedures for the Mission-Critical Computer Resources (MCCR) Software Change Review Boards (RCRB's) which further provides procedures for establishment of SCRB's including Software Trouble Report Priorities by PM's or acquisition managers as a management discipline to exercise configuration control over weapon system MCCS and related support software.

2. Policy. It is the policy of COMNAVAIR that:

a. SCRB's for each weapon system or subsystem be established.

b. ECP's which describe changes to be incorporated in MCCS or may affect associated computer hardware, be processed for SCRB review and approval prior to Change Control Board processing.

c. Change Control Board approved MCCS changes will be released to the fleet with a Technical Directive per NAVAIR Instruction 5215.12.

NAVAIRINST 4130.1C  
31 Jan 92

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APPENDIX E

Forms

The forms referred to in this instruction and listed below are available as follows:

FORM NO.	TITLE	NSN	Stocked	
			FIELD	NAVAIR
<u>NAVAIR FORMS</u>				
4130/1	CCB Request/Directive		AIR-419	FORMS RM.
4130/2	CCB Cost & Funding Summary		AIR-419	FORMS RM.
4130/3	CCB Milestone Chart		AIR-419	FORMS RM.
4130/4	Implementing Instructions CCB Change Directive Implementation		AIR-419	FORMS RM.
4130/5	CCB Change Request/Supplement (Government Furnished Equipment Requirements FY- )		AIR-419	FORMS RM.
4130/6	CCB Master Government Furnished Equipment (MGFEL) Change		AIR-419	FORMS RM.
4130/7	Support Equipment Requirements		AIR-419	FORMS RM.
4130/8	CCB Change Request/Directive AIR-04 Staffing/Concurrence		AIR-419	FORMS RM.
4130/9	CCB Change Request/Directive AIR-05 Staffing/Concurrence		AIR-419	FORMS RM.
4130/10	CCB System Safety Assessment		AIR-419	FORMS RM.
13051/9	Controlling Custodian (TYCOM) ECP Incorporation Plan		AIR-419	FORMS RM.

DOD FORMS

1692	Engineering Change Proposal, Page 1		0102-LF-009-1200	
1692-1	Engineering Change Proposal, Page 2		0102-LF-009-1300	
1692-2	Engineering Change Proposal, Page 3		0102-LF-009-1400	

NAVAIRINST 4130.1C  
31 Jan 92

<u>FORM NO.</u>	<u>TITLE</u>	<u>NSN</u>	<u>Stocked</u> <u>FIELD</u> <u>NAVAIR</u>
1692-3	Engineering Change Proposal, Page 4		0102-LF-009-1500
1692-4	Engineering Change Proposal, Page 5		0102-LF-009-1600
1692-5	Engineering Change Proposal, Page 6 (Milestone Chart)		0102-LF-009-1700
1693	Engineering Change Proposal (Short Form)		0102-LF-009-1800
1423	Contract Data Requirements List		0102-LF-010-5400
1694	Request for Deviation/Waiver		0102-LF-009-1900
1695	Notice of Revision (NOR)		0102-LF-009-2000
1696	Specification Change Notice		0102-LF-009-2100

INDEX

SUBJECT MATTER INDEX

Administrative Changes, Approval of	6-9
Allocated Baseline	3-1
Allocated Configuration Identification	3-1
Allocated Configuration Identification Documentation	3-3
Appeal of Change Control Board Decisions	6-7
Approval Procedures for Administrative Changes	6-9
Approval Procedures for Cancellation of Approved Changes	6-10
Approval Procedures for Class I Engineering Change Proposals	5-4
Approval Procedures for Class II Engineering Change Proposals	5-4
Approval Procedures for Commercially Controlled Changes	5-4
Approval Procedures for Follow-on Buys	6-8
Approval Procedures for Interim Changes	6-8
Approval Procedures for Safety Related Engineering Change Proposals	6-9
Approval Procedures, Hand Carry Authorization and Audits, Configuration	6-7
Audits, Contractual Requirements/Provisions	4-1
Audits, Guidance for Conducting Audits	4-1
Audits, Life Cycle Technical Reviews and	4-2
Automatic Test Equipment, Requirements for	3-2
Baseline,	3-1
Baseline, Allocated	3-1
Baseline, Functional	3-1
Baseline, Product	3-1
Cancellation of Change Control Board Approved Changes	6-10
CCB Change Request/Directive AIR-04 Staffing/Concurrence Form (NAVAIR 4130/8)	6-63
CCB Change Request/Directive AIR-05 Staffing/Concurrence Form (NAVAIR 4130/9)	6-66
CCB Change Directive Implementation Form (NAVAIR 4130/1)	6-50
CCB Change Request/Directive Form (NAVAIR 4130/1)	6-17
Change Control Board Actions, Publication of	6-7
Change Control Board Approval	6-7
Change Control Board Charter Memorandum, Sample Request for	5-11
Change Control Board Charter, Sample Configuration	5-12
Change Control Board Decisions, Appeal of	6-7
Change Control Board Meeting	6-7
Change Control Board, NAVAIR	5-8
Change Control Board Package, Preparation and Assembly of	6-3
Change Control Board Records	6-7
Change Control Board Scheduling	6-6
Change Implementation	5-3, 6-9
Change Planning and Coordination	5-4
Change Processing Stops	6-1
Change Proposal Evaluation and Planning Conference	6-1

Change Rejection	6-2
Changes to a Configuration Item, Methods Used for Proposing	5-3
Changes to Configuration Items and Identification	5-1
Classification of Engineering Change Proposals	5-4
Commercially Controlled Changes, Review and Approval of	5-4
Conference, Change Proposal Evaluation and Planning	6-1
Configuration Audits	4-1
Configuration Control	5-1
Configuration Control Authority	5-1
Configuration Identification	3-1
Configuration Identification Changes	3-2
Configuration Identification contractual Requirements/ Provisions	3-2
Configuration Lists, As Built	3-2
Configuration Management	1-1
Configuration Management Contractual Requirements/ Provisions	1-2
Configuration Management Plans	2-1
Configuration Management Related Documents	1-1, B-1
Configuration Management, Joint Service	1-2
Configuration Management Requirements, Life Cycle	1-1
Configuration Management Terms and Definitions	1-1
Configuration Status Accounting	7-1
Contractor Configuration Management Plan	2-2
Controlling Custodian ECP Incorporation Plan (NAVAIR 13061/9)	6-69
Cost and Funding Summary (NAVAIR 4130/2)	6-2
Decision Memorandum	6-3
Decision Memorandum, Sample	6-13
Definitions, Configuration Management Terms and Deviation, Request for	1-1, A-1 5-C
Engineering Change Proposal Approval Notification Letter	6-76
Engineering Change Proposal Coordination Letter, Sample Type Command (TYCOM)	6-73
Engineering Change Proposal Process at Naval Air Systems Command (Schematic)	6-72
Engineering Change Proposal Rejection Letter	6-2
Engineering Change Proposal Rejection Letter, Sample	6-11
Engineering Change Proposal, Sample Request For	5-13
Engineering Change Proposal Revision or Amendment, Sample Request For	6-12
Engineering Change Proposals	5-3
Engineering Change Proposals, Funding for	5-5
Engineering Change Proposals Against Transitioned Items Guidance for Processing	5-6, C-1
Engineering Change Proposal, Categories	5-5
Engineering Change Proposals, Classification of	5-4
Engineering Change Proposals, Types of Class I	5-3
Engineering Drawings and/or Data Lists, Requirements for Functional Baseline	3-2 3-1
Functional Configuration Audit	4-1
Functional Configuration Identification	3-1
Functional Configuration Identification Documentation	3-3

31 Jan 92

Follow-on Buys, Approval of	6-8
Foreign Military Sales Requirements	5-4
Formal Engineering Change Proposals	5-5
Forms Required for the Preparation of Change Control and Change Request/Directives (Chart)	6-16
Funding for Engineering Changes	5-5
Government Furnished Equipment List Change Form, Master (NAVAIR 4130/6)	6-56
Government Furnished Equipment Lists, Changes to Master	5-7
Government Furnished Equipment Requirements	5-8, 6-6
CCB Change Request/Supplement (NAVAIR 4130/5), Government Furnished Equipment Requirements	6-4
Hand Carry Authorization and Approval Sheet	6-74
Hand Carry Authorization and Approval Procedures	6-8
Implementation, NAVAIR change	5-3, 6-9
Implementation of Change Control Board Directed Actions	6-9
Implementation of Status Accounting	7-1
Implementation Tracking, Command Change	6-10
Implementation Form (NAVAIR 4130/4), CCB Change Directive	6-50
Interim Changes	6-8
Joint Service Configuration Management	1-2
Joint Service Programs, Configuration Status Accounting for	7-1
Management Proposals, Program and PEO/NAVAIR	5-3
Master Government Furnished Equipment (NGFEL)	6-4
Master Government Furnished Equipment Lists, Changes to Matrix Staffing and Processing	5-7 6-4
Membership of the NAVAIR Change Control Board	5-8
Milestone Chart (NAVAIR Form 4130/3)	6-45
Mission Essential Subsystems Matrices	7-1
Modification Programs, Major	3-2
NAVAIR Change Control Board Members, Responsibilities of the	5-10
NAVAIR Change Control Board, Membership of the	5-8
Nomenclature Assignments and Identification Markings	3-2
Office of Primary Responsibility	6-1, 6-3, 6-4
Office of Primary Responsibility Configuration Management Plan	2-1
Physical Configuration Audit	4-1
Planning and Coordination, Change	5-4
Preliminary Engineering Change Proposals	5-5
Preparation and Assembly of Change Control Board Package	6-3
Product Baseline	3-2
Product Configuration Identification	3-2
Product Configuration Identification Documentation	3-3
Production Approvals 5-6	
Proposals, Program and PEO/NAVAIR Management	5-3
Publication of Change Control Board Actions	6-7
Rapid Action Minor Engineering Change (RAMEC)	5-7

NAVAIRINST 4130.1C  
31 Jan 92

RAMEC Policy and Procedures	5-7
Records, Change Control Board	6-7
Request for Change Revision or Amendment	6-2
Request for Deviation	5-6
Request for Waiver:	5-7
Rejection Letter, Sample Change	6-11
Retrofit Requirements for Production Changes	5-3
Revision or Amendment, Request for Change	6-2
Revision or Amendment to an Engineering Change Proposal, Sample Request for	6-11
Safety Assessment Form, Sample System (NAVAIR 4130/10)	6-71
Safety Related Changes, Approval of	6-9
Serial Number Configuration Lists	3-2
Software Changes	5-8
Software Requirements	6-6
Solicited Engineering Change Proposal	5-5
Specification Requirements, Performance Oriented	3-3
Staffing and Processing, Matrix	6-4
Status Account Technical Directive	7-2
Submission of Engineering Change Proposals by Contractors	5-6
Submission of Engineering Change Proposals by Government Agencies	5-6
Support Equipment Requirements Form (NAVAIR Form 4130/7)	6-59
Technical Directive Status Accounting	7-2
Technical Reviews and Audits, Life Cycle	4-2
Transitioned Items, Guidance for Processing Engineering Change Proposals Against	C-1
TYCOM Concurrence Form (NAVAIR 13051/9)	6-69
Unsolicited Engineering Change Proposal	5-5
Waiver, Request for	5-7