

CHAPTER 1
Introduction and Guide for Using the Naval Aviation Maintenance Program
(NAMP) Instruction, Overview of the NAMP, and Organization for Naval
Aviation Maintenance

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CHAPTER 1
Introduction and Guide for Using the Naval Aviation Maintenance Program
(NAMP) Instruction, Overview of the NAMP, and Organization for Naval
Aviation Maintenance

1.1 Introduction and Guide for Using the Naval Aviation Maintenance Program (NAMP) Instruction

1.1.1 Introduction

1.1.1.1 The NAMP is sponsored and directed by CNO and implemented by COMNAVAIRFOR. COMNAVAIRFORINST 4790.2 addresses maintenance policies, procedures, and responsibilities for the conduct of the NAMP at all levels of maintenance throughout naval aviation.

1.1.2 Issuance

This document is issued in Portable Document Format (.pdf).

1.1.3 Guide for Using the NAMP Instruction

1.1.3.1 Pages are numbered in a separate series for each chapter and appendix. The pages of each chapter are numbered in sequence and preceded by the chapter number, for example, the third page in Chapter 1 is numbered 1-3. The pages of each appendix are numbered in sequence and preceded by the appendix letter, for example, the second page in appendix A is numbered A-2.

1.1.3.2 Figures are provided to clarify or amplify text. Figures are numbered in sequence and preceded by the chapter number, for example, the first figure in Chapter 1 is Figure 1-1. Figures in [Chapter 10](#), Naval Aviation Maintenance Program Standard Operating Procedures (NAMPSOPs), with the exception of DOD/DON forms, may be modified by commands as needed to meet specific aircraft/equipment requirements, provided minimum data requirements of NAMPSOPs are met.

1.1.3.3 Warnings, cautions, and notes used in this instruction are explained as follows:

- a. Warning refers to a procedure or practice that, if not correctly followed, could result in injury, long term health hazards, or death.
- b. Caution refers to a procedure or practice that, if not correctly observed, could result in damage to or destruction of equipment.
- c. Note refers to a procedure or condition that requires emphasis.

1.1.3.4 The concept of word usage and intended meaning that has been adhered to in preparing this instruction follows:

- a. "Shall" means procedure is mandatory.
- b. "Should" means procedure is recommended.
- c. "May" and "need not" mean procedure is optional.
- d. "Will" indicates futurity and never indicates any degree of requirement for application of a procedure.

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e. MO is equivalent to Aircraft Maintenance Officer for the Marine Corps and appropriate/equivalent officer for FRC.

f. AMO is equivalent to Assistant Aircraft Maintenance Officer for the Marine Corps.

g. MMCO is equivalent to Production Control Officer for the Marine Corps.

1.1.3.5 Directives cited in the text of this instruction are identified by the basic number, for example, OPNAVINST 3750.6R will be identified as OPNAVINST 3750.6. Appendix C provides the latest referenced directives in use at time of publication of the change or revision to the NAMP. It is the responsibility of the user to determine the current status of any directive being used.

1.1.3.6 For NAMP policy interpretation, contact your cognizant ACC/TYCOM/Wing.

1.1.3.7 Questions other than NAMP policy, may be submitted to COMNAVAIRSYSCOM (AIR-6.7.2.1) via the NAMP web site (<http://www.navair.navy.mil/logistics/4790>).

1.1.4 Corrections, Changes, and Deviations Processing

1.1.4.1 Corrections

1.1.4.1.1 Recommendations to correct administrative discrepancies shall be submitted by naval letter or by email directly to COMNAVAIRSYSCOM (AIR-6.7.2.1). [Figure 1-1](#) is a sample correction recommendation letter.

1.1.4.1.2 COMNAVAIRSYSCOM (AIR-6.7.2.1) will reply via email to the originator acknowledging receipt of the correction recommendation and citing its disposition. All valid correction recommendations with no software impact will be incorporated at the earliest possible date. Valid correction recommendations with software impact will be coordinated with SPAWARSCEN Norfolk and COMNAVAIRSYSCOM (AIR-6.8.4) before incorporation.

1.1.4.2 Changes

1.1.4.2.1 Recommendations to change NAMP policies or procedures shall be submitted by naval letter or email, via the chain of command, to the originator's TYCOM. The TYCOM will submit change recommendations, using CHARTS, to COMNAVAIRSYSCOM (AIR-6.7.2.1). Activities without a TYCOM shall submit change recommendations directly to COMNAVAIRSYSCOM (AIR-6.7.2.1). COMNAVAIRSYSCOM (AIR-6.7.2.1) will enter the change recommendations into CHARTS. [Figure 1-2](#) is a sample change recommendation letter.

NOTES: 1. When using email procedures, scan the signed letter and include it as an attachment.

2. Any individual or activity having knowledge of any situation, procedure, or policy that adversely affects critical NAMP functions shall report the information by naval message to COMNAVAIRFOR via cognizant wing/ACC/TYCOM with an information copy to COMNAVAIRSYSCOM.

1.1.4.2.2 COMNAVAIRSYSCOM (AIR-6.7.2.1) will reply via email to the originator acknowledging receipt of the recommended change.

1.1.4.2.3 COMNAVAIRSYSCOM (AIR-6.7.2.1) will review recommended changes and conduct liaison as necessary with affected organizations. SPAWARSCEN Norfolk, COMNAVAIRSYSCOM (AIR-6.8.4), NATEC (AIR-6.8.5), and NAVAIRWARCENWPNDIV Point Mugu will assist in the review process and provide an impact assessment/cost of the recommended change if approved by COMNAVAIRFOR.

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Accepted changes are assigned a Change Control Number. Changes affecting software programming or report format/content will have a suffix "P" added to the Change Control Number. Changes containing new or revised forms will have a suffix "F" added to the Change Control Number. Changes affecting OPNAVINST 8000.16 will have the suffix "N" added to the Change Control Number.

1.1.4.2.4 Following review and resolution of outstanding issues, COMNAVAIRSYSCOM (AIR-6.7.2.1) will forward the recommended change and all pertinent information to the NAMP Working Committee members for their review, comments, and vote via CHARTS.

1.1.4.2.5 Upon completion of voting, COMNAVAIRSYSCOM (AIR-6.7.2.1) shall prepare and forward the recommended change to COMNAVAIRFOR (N422) with comments and recommendations (as appropriate).

1.1.4.2.6 COMNAVAIRFOR has final disposition authority. The final disposition is recorded in CHARTS.

1.1.4.2.7 A recommended change requiring software development or validation specification changes will be coordinated with SPAWARSCEN Norfolk, COMNAVAIRSYSCOM (AIR-6.8.4), and COMNAVAIRSYSCOM (AIR-6.7.2.1). An implementation date will be jointly established.

1.1.4.2.8 An interim change may be issued by COMNAVAIRFOR via message to correct a NAMP procedure, policy, practice, or situation adversely affecting maintenance, aircraft or personnel safety, readiness, or critical function. The CTPL shall maintain interim changes on file until the superseding NAMP instruction is issued.

1.1.4.3 Deviations

1.1.4.3.1 Requests to deviate from NAMP policies, procedures, or responsibilities shall be submitted by naval letter or email to COMNAVAIRFOR (N422), via the originator's chain of command, with a copy to OPNAV (N781) and COMNAVAIRSYSCOM (AIR-6.7.2.1). [Figure 1-3](#) is a sample deviation request letter.

NOTE: When using email procedures, scan the signed letter and include it as an attachment.

1.1.4.3.2 Deviation requests are processed one of two ways:

a. ACCs/TYCOMs, assisted by Type Wings/MAWs/COMFAIRs, will research and liaise as necessary to verify and substantiate the need for a deviation request based solely on manpower constraints (loss of authorized billets, for example, "gapped" billets). Following this investigation, the applicable ACC/TYCOM will approve or disapprove the deviation request and forward a copy to OPNAV (N781), COMNAVAIRFOR (N422), and COMNAVAIRSYSCOM (AIR-6.7.2.1).

b. Deviation requests not related to manpower constraints shall be submitted to COMNAVAIRFOR (N422) via the chain of command, with a copy to OPNAV (N781) and COMNAVAIRSYSCOM (AIR-6.7.2.1). SPAWARSCEN Norfolk and COMNAVAIRSYSCOM (AIR-6.8.4) shall be included as "copy to" for all deviations affecting the MDS and NALCOMIS. COMNAVAIRFOR (N422), assisted by COMNAVAIRSYSCOM (AIR-6.7.2.1), will research and liaise as necessary to verify and substantiate the need for the requested deviation. Following this investigation, COMNAVAIRFOR (N422) will approve or disapprove requested deviation. A deviation request that affect MDS and NALCOMIS will be verified and coordinated with SPAWARSCEN Norfolk and COMNAVAIRSYSCOM (AIR-6.8.4). COMNAVAIRFOR (N422) grants a deviation for a specific duration for a situation or set of circumstances.

1.2 Overview of the Naval Aviation Maintenance Program (NAMP)

1.2.1 Objective

a. The objective of the NAMP is to achieve and continually improve aviation material readiness and safety standards established by the CNO/COMNAVAIRFOR, with coordination from the CMC, with optimum use of manpower, material, facilities, and funds. COMNAVAIRFOR aviation material readiness standards include:

(1) Repair of aeronautical equipment and material at that level of maintenance which ensures optimum economic use of resources.

(2) Protection of weapon systems from corrosive elements through the prosecution of an active corrosion control program.

(3) Application of a systematic planned maintenance program and the collection, analysis, and use of data in order to effectively improve material condition and safety.

b. The Naval Aviation Plan (secret) details logistics actions which will allow the maximum opportunity to achieve this objective.

c. The methodology for achieving the spirit and intent of the NAMP objective is labeled "performance improvement". Performance improvement is an "all hands" effort which focuses on service and close support to customers. As a primary prerequisite, the mission must be clearly understood and communicated to everyone in the organization. It is essential that all personnel know their job, understand their contribution to mission accomplishment, and are sensitive to customer requirements. New or improved cost effective capabilities and processes must be continuously pursued. Mutually supporting teamwork, constant communication, and compatible measures are critical elements for success. Performance improvement must be targeted to accomplish the following broad goals:

- (1) Increased readiness.
- (2) Improved quality.
- (3) Improved deployability.
- (4) Improved sustainability.
- (5) Reduced costs.
- (6) Enhanced preparedness for mobilization, deployability, and contingency operations.
- (7) Enhanced supply availability.
- (8) Improved morale and retention.
- (9) Compliance with environmental laws, rules, and regulations.

1.2.1.1 Performance Improvement

1.2.1.1.1 While the overall performance of our aviation units has been excellent, significant improvements are still possible and necessary. To realize continuous gains, performance improvement must be fully understood and actively managed. As new techniques and concepts evolve, they must be evaluated and then

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implemented if found to be sound. Before performance improvement efforts can be successfully managed, all performance elements must be defined.

1.2.1.1.2 The seven performance elements are defined as follows:

a. Productivity - The pivotal element of the seven performance elements in that it is highly interrelated with all of the elements. Productivity must always be viewed in terms of its impact on effectiveness, efficiency, quality, innovation, quality of work life, and budgetability. Productivity relates the outputs created by a system to the inputs required to create those outputs, as well as the transformation process of inputs to outputs. Inputs in the form of personnel, skills, material, RFI and non-RFI components, bit and piece parts, equipment, SE, hand tools, methods, technical publications, directives, data, environment, facilities, funding, and energy are brought into the system. These inputs are transformed into outputs (RFT aircraft, RFI components, manufactured goods, inspection and calibration services) which are vital in providing necessary maintenance and logistic support to achieve and sustain naval aircraft readiness.

b. Effectiveness - A function of the outputs, tells us how well goals are achieved. For example, in IMAs it is how well we repair the right things at the right time to ensure maximum readiness is achieved. In squadrons, it is how well assigned aircraft can perform their mission.

c. Efficiency - The relationship between actual and planned resources. Efficiency describes how well the resources were used, as in manpower utilization.

d. Quality - The degree of satisfaction in a product or service as determined by the customer. Fit, form, function, reliability, maintainability, consistency, and uniformity are some characteristics affected by quality.

e. Innovation - The creativity applied to the transformation process, for example, development of new repair processes.

f. Quality of Work Life - A function of morale and other factors which affect personnel pride and motivation.

g. Budgetability - The ability to perform the assigned mission within allotted resources.

1.2.1.2 Chief of Naval Operations' (CNO) Strategy for Performance Improvement

1.2.1.2.1 Performance improvement objectives in the CNO Strategic Plan provide direction to all echelons. To effectively achieve these objectives, naval aviation established the NAE. This organization, which comprises all the stakeholders in naval aviation, is committed to a single metric – meeting the required aircraft RFT at reduced cost. To achieve this objective, both today and in the future, an attitude of commitment, a sense of urgency, and a bias for action must prevail. An integral enabler of meeting the single fleet driven metric is NAVRIIP. NAVRIIP defines and executes policy change that will sustain near and long term aviation readiness goals. The primary goal is to balance and align interaction among the infrastructure that supports our aircraft.

1.2.1.2.2 NAVRIIP and the associated leadership team establishes T/M/S teams under the leadership of a TYCOM to manage readiness and cost and work cross-functionally with other entities of the enterprise to identify and remove barriers to attain the desired RFT at reduced cost. NAVRIIP:

a. Defines and implements individual activity and ACC/TYCOM strategic plans. Use statistical methods to identify problems in the system whose correction can improve performance.

b. Support NALCOMIS improvement.

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- c. Adopts a new philosophy for performance improvement. Any substantial improvement is the responsibility of management and must come from the system.
- d. Continues performance improvement conferences, at the ACC/TYCOM and individual activity level.
- e. Works towards achieving and maintaining a stable work force.
- f. Ensures performance improvements focus on and support contingency mobilization requirements.
- g. Identifies components for which new or expanded repair capabilities would be cost effective. Emphasis should remain on the repair of mission essential items.
- h. Requires acquisition managers to focus on design criteria for reliability and maintainability, maintenance concepts, transportability, utilization of diagnostics, and maintenance training.
- i. Sustains the effort to ensure comprehensive review and funding support to provide repair parts.
- j. Identifies the best practices and procedures of individual activities and implement them at other activities when feasible and cost effective through analysis of performance among IMAs and squadrons.
- k. Identifies, evaluates, and reports on the impact of current directives, programs, and practices which impede the objectives of performance improvement.
- l. Improves technical training to ensure "state-of-the-art" level of training.
- m. Focuses supervision on helping our people do a better job.
- n. Insists naval aviation suppliers demonstrate evidence of statistical control of quality and naval aviation contracts are awarded on a life cycle cost basis, not on just an initial price tag.
- o. Ensures compliance with rapidly changing environmental laws, rules, and regulations, and focuses on the fact that ever tightening restrictions require continued emphasis on constant, forward looking improvements.

1.2.1.2.3 The NAMP Policy Committee shall be the Naval Aviation Fleet Performance Improvement ESC. This committee shall meet semiannually to review and resolve issues involving naval aviation performance improvement matters, revise or add long range goals and objectives, and provide direction for implementation. Performance improvement management guidance, initiatives implemented, results achieved, and new or revised objectives, shall be issued at the conclusion of each ESC meeting.

1.2.1.2.4 COMNAVAIRSYSCOM is designated as the focal point for fleet aviation maintenance performance improvement matters. New techniques and concepts evolve periodically which require review for potential implementation. To assist in this endeavor COMNAVAIRSYSCOM shall:

- a. Pursue new performance improvement methods and maintain currency in performance management techniques.
- b. Provide technical assistance for performance improvement efforts at ACC/TYCOM and fleet activities.
- c. Assist with the transfer of performance improvement ideas among all activities.
- d. Generate awareness for performance improvement.

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- e. Track action items assigned by the ESC.

1.2.1.2.5 To ensure warfighting capability and deployability while enhancing fleet readiness, sustainability, and preparedness for mobilization, naval aviation maintenance activities must build on the excellence they have already achieved and continue to improve their performance. Performance improvement initiatives at every level contribute toward accomplishing these goals while reducing cost. Individuals must be encouraged to participate and provide their best efforts. The challenge of maintaining fleet readiness while keeping naval aviation affordable is paramount.

1.2.1.3 AIRSpeed

1.2.1.3.1 AIRSpeed is NAVRIIP's architecture for operationalizing cost-wise readiness across the NAE. It is characterized by an integrated culture of self-sustaining, CPI aligned toward delivering mission requirements at reduced resource cost thus enabling world-class logistics excellence for the NAE in support of the T/M/S teams.

1.2.1.3.2 AIRSpeed provides the planning, training, integration, sustainment, and monitoring of business practices across the NAE. Functions include practical application, progress assessment, communications, innovation, and documentation of barriers and effects-cause-effects (lessons learned).

1.2.1.3.3 To revolutionize the way naval aviation does business, AIRSpeed will focus on the following fundamental principles:

- a. Properly manage RFT aircraft.
- b. Manage inventory and investments (parts, equipment, and facilities).
- c. Reduce operating expenses.
- d. Identify and address interdependencies.
- e. Identify constraints.
- f. Manage and reduce variability.
- g. Create a culture of CPI.

1.2.1.3.4 As NAVRIIP's enabler in our enterprise approach toward CPI, AIRSpeed is an essential tool in achieving and sustaining cost-wise aircraft readiness. AIRSpeed provides managers the tools to balance and align maintenance and supply activities to end-user demand (operations). Providing the right material, to the right place at the right time, and at the right cost is key to the successful attainment of RFT aircraft. Additionally, AIRSpeed provides a set of tools to achieve cost-wise readiness using best business practices, such as Lean, Six-Sigma, and TOC. The application of these tools will assist the activity in removing/managing constraints, removing waste, and reducing variability in their process.

1.2.1.3.5 Successful implementation of AIRSpeed will reduce the total cost of naval aviation by reducing inventory and operating expenses. AIRSpeed drives choices, decisions and actions that deliver pre-determined outcomes within an enterprise construct. The AIRSpeed approach will transition our maintenance and supply logistical practices from the traditional push system to a demand pull based system. AIRSpeed will enable activities to make budgetary decision with a comprehensive understanding of how local decisions have a global impact on naval aviation.

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1.2.2.1 CNO provides the basis for the NAMP and sets policy in the basic instruction for the assignment of maintenance responsibilities to all activities that maintain naval aircraft.

1.2.2.2 Aircraft maintenance is a command responsibility administered through the military chain of command. Technical management is exercised in consonance with this instruction and directives developed and published by COMNAVAIRSYSCOM.

1.2.3 Funding

1.2.3.1 CNO and CMC annually allocate materials and services for support of the NAMP. Allocations are based upon competing requirements for the resources available in the Six Year Defense Plan during the development of the POM. The POM contains force and resource recommendations, with rationale and risk assessment, and must conform with the fiscal guidance issued by the SECDEF. It is developed by fiscal year and is concentrated 2 fiscal years in advance. It includes projections of forces programmed for 8 fiscal years and manpower programmed for 5 fiscal years. The required forces are first identified, then manpower requirements necessary to support the planned forces are determined. The DON's POM is the annual recommendation to SECDEF for the detailed application of resources. Upon receipt and analysis of the POM submission for each military department, SECDEF issues program decisions. These decisions include intended adjustments in the POM submission. Reclamas to these decisions may be submitted by the military departments. When program decisions are finalized, departments and agencies submit budget estimates for the budget year, usually the next fiscal year, to SECDEF. Upon receipt and after evaluation of the budget estimates, SECDEF issues program budget decisions and submits the DOD budget as part of the President's budget submitted to Congress.

1.2.3.2 CNO and CMC distribute the funds after Congress approves them. Funding for the NAMP, called an OPTAR, is allocated to squadrons by Type Wings and ACCs/TYCOMs. OPTAR is an estimate of the amount of money required by a unit to perform its mission and is distributed quarterly.

1.2.4 Manpower Management

1.2.4.1 CNO and CMC direct and coordinate the development and implementation of the manpower planning system to:

- a. Determine minimum military and civilian manpower requirements to achieve approved operational and mission demands.
- b. Provide staffing standards for functions performed ashore and afloat, based on recognized management and industrial engineering techniques and objective determinations of workload.
- c. Provide a system for combining manpower requirements information at levels above the activity level, to support and justify Navy and Marine Corps manpower requirements during all stages of the planning, programming, and budgeting system.
- d. Relate support manpower requirements of the shore establishment to the changing demands of the operating forces.
- e. Provide reliable planning information to personnel inventory managers, both military and civilian.
- f. Ensure manpower requirements for maintenance and operation of new weapon systems, equipment, and initiatives are specified sufficiently in advance of fleet introduction to allow them to be considered in the programming cycle and for development of required personnel skill levels.

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- g. Reduce response time to management queries for manpower information.

1.2.4.2 While policy control and direction of the Navy manpower requirements system is vested in CNO, support for these programs is provided by NAVMAC. Policy, control, and direction of the Marine Corps manpower rests with the CMC and is executed by the Deputy Chief of Staff for Manpower (Code M) in coordination with the Deputy Chief of Staff for Aviation (Code A).

1.2.4.3 Manpower requirements are included in the DOD planning, programming, and budgeting system. This system operates on a 20-month cycle and is repeated annually. Navy and Marine Corps manpower requirements are submitted via the POM.

1.2.4.4 CNO publishes annual guidance to manpower claimants concerning submission of manpower requests for consideration in the POM process. Manpower claimants screen, assign priorities, and justify requests for additional manpower and submit only those requests which are realistic and competitive. Manpower claimants must realize that in POM development, all requests for resources, for example, manpower, training, support, and fiscal, compete with each other and only the most competitive requirements may be approved. Additional manpower funding must be justified by the manpower claimant, the sponsor, and CNO. Manpower requests which contribute to increased readiness or readiness improvements have the highest chance of success for funding during the POM year.

1.2.4.5 OPNAVINST 1000.16 provides information, policies, tasking, and procedures for Navy manpower management. This instruction:

- a. Consolidates CNO manpower directives.
- b. Defines and issues manpower, policies, and procedures in a manner designed to enhance understanding and ease of use at the activity level.
- c. Provides an overview, and details as necessary the manpower requirements, documentation, and programming processes.
- d. Assigns and defines manpower responsibilities.
- e. Provides for the overall effective and efficient management of Navy manpower resources.
- f. Provides easy-to-follow procedures for effecting manpower changes within the TFMMS.
- g. Describes and defines activity data, requirements data, and authorization data set forth in the AMD.

1.2.4.6 NTTP 1-03.3 and CNAFINST 3500.38 provide guidance for reporting Mission Area-Specific Resource ratings for personnel. The SORTSREPNV message is the primary means of keeping higher authority informed of the readiness condition of naval units. A key contributing factor to this initiative is the ability to properly calculate and report both onboard and projected percentages of PRMAR enlisted personnel.

1.2.4.7 Both NTMPS and FLTMPS are web-based applications that provide various tools in performing fundamental tasks in the administration of the Maintenance Manpower Program.

1.2.5 Material Management

CNO directs and coordinates the development and implementation of the material acquisition planning system via the systems commands. Material requirements, like manpower requirements, are submitted via the POM.

1.2.6 R} Operational Risk Management (ORM)

ORM is a decision making tool applicable to the entire spectrum of naval activities. Through application of systematic evaluation and planning to identify, assess, and manage risks, operational readiness and probability of a successful mission is increased. Its purpose is to operate safely by managing risk and to reduce the potential for loss, thereby gaining the competitive edge in combat. Education and training will provide the foundation to ensure that ORM becomes a part of the culture within the NAE. To enhance ORM awareness and standardization, all NAE managers and technicians shall incorporate ORM into maintenance planning evolutions.

1.2.6.1 Operational Risk Management (ORM) Process Description

1.2.6.1.1 The ORM process revolves around a simple five-step sequence:

- a. Identify hazards.
- b. Assess hazards.
- c. Make risk decisions.
- d. Implement controls.
- e. Supervise.

1.2.6.1.2 The ORM process exists on three levels:

- a. Time-critical, such as a quick mental review of the five-step sequence during aircraft CVN launch.
- b. Deliberate, such as group brainstorming, to identify hazards during a Detachment preparation meeting.
- c. In-depth, such as using substantial tools to thoroughly study the hazards and their associated risks during introduction of new aircraft/weapons systems.

1.2.6.1.3 The ORM process incorporates four principles:

- a. Accept risk when the benefits outweigh the costs.
- b. Accept no unnecessary risk.
- c. Anticipate and manage risk.
- d. Make risk decisions at the right level.

1.2.6.2 Enhancing Operational Risk Management (ORM)

1.2.6.2.1 Detailed ORM guidance is in OPNAVINST 3500.39/MCO 3500.27. The Naval Safety Center web site (<http://safetycenter.navy.mil/orm>) provides easy-to-follow ORM process training.

1.2.6.2.2 Additional ORM and groundcrew coordination training resources:

- a. Human Factors in Aviation Maintenance and Inspection web site (<http://hfskyway.faa.gov>).
- b. IMI.

1.3 Organization for Naval Aviation Maintenance

1.3.1 Command Structure

1.3.1.1 The CNO, under the direction of the SECNAV, commands the operating forces of the Navy, OPNAV, and the Chief of Naval Personnel. In addition, the CNO commands such shore activities as assigned by SECNAV.

1.3.1.2 CNO is responsible for the disciplined use of resources and the operating efficiency of all commands and activities under his command. [Figures 1-4](#) and [1-5](#) show the CNO command organization in support of naval aviation.

1.3.1.3 The CMC coordinates with OPNAV, COMNAVAIRSYSCOM, COMNAVSEASYSYSCOM, COMSPAWARSYSCOM, and other Navy support activities in the planning for, and acquisition of, equipment, weapons, weapon systems, material, supplies, facilities, maintenance, and support services for Marine Corps aviation. CMC also coordinates with the CNO to ensure the characteristics of newly procured or developed equipment and material for the Marine Corps meet operational requirements; proposed training will prepare Marine Corps personnel for combat; and in the planning, development, and fielding of MISs in support of Marine Corps aviation. Aviation logistics support for aviation peculiar items is provided through Navy material and equipment support systems.

1.3.2 Command Relationships

Command relationships and the exercise of command and support responsibilities for Navy and Marine Corps shore activities appear in SECNAVINST 5450.4 and are not affected by this instruction.

1.3.3 Command Responsibilities

1.3.3.1 ACCs are responsible for the maintenance and material condition of aeronautical equipment assigned to their cognizance for the operation and support of the naval aviation mission. Additionally, they coordinate the NAMP in the operating and training forces. Each ACC coordinates aeronautical equipment assignment, logistic support, and maintenance performed on aeronautical equipment under its custody.

1.3.3.2 COMMARFORCOM and COMMARFORPAC provide support to COMNAVAIRFOR for logistic matters related to aviation material readiness and internal material management of common aviation support.

1.3.3.3 Commanders designated by ACCs are responsible for coordinating maintenance performed by squadrons under their cognizance. Operational commanders, such as carrier air wing commanders, are responsible for the operational readiness of activities under their command. Administrative commanders, such as Type Wing Commanders, are responsible for the material readiness of activities under their command. Factors impacting material readiness include aircraft CM, OPTAR procedures, personnel training, aircraft material condition, IMRL management, and other special programs. Material support of operational units is the responsibility of the supporting IMA/FRC. Elements of material support include repairables management, processing work requests, K-pool management, PME maintenance, and NDI capability. Nevertheless, maintenance and material condition of assigned aircraft and associated aeronautical equipment is the inherent responsibility of the squadron CO.

1.3.3.4 Navy squadrons are responsible for providing augmentation personnel to IMAs/FRCs. The methodology for providing augment manpower to IMAs/FRCs varies as follows:

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a. For Navy shore-based nondeploying squadrons, augmentation personnel are provided to the supporting IMA/FRC through an operational detachment.

b. For shore-based nonaircraft carrier deploying squadrons and all reserve force squadrons, TAD personnel are provided to supporting IMAs/FRCs as required by their AMD.

c. Shore-based Navy squadrons who have I-level billets authorized shall assign personnel to the supporting IMA/FRC for a minimum of 12 months.

d. For CV deploying squadrons, augmentation personnel are provided to CV AIMDs from NAS SEAOPDETs. A SEAOPDET is a cadre of bench operators and apprentice level IMA augmentation personnel who are assigned to a sea duty unit identification code in the ashore IMA.

1.3.3.5 Each CV, multipurpose amphibious assault ship, amphibious assault ship, and helicopter assault landing ship is responsible for providing I-level support facilities, and material for the embarked airwing. Nonaviation ships with embarked aircraft are responsible for providing O-level material, facilities, and SE not organic to the embarked unit.

1.3.3.6 Shore-Based Activities

1.3.3.6.1 FRCs perform on and off aircraft maintenance and provide engineering, technical, and customer service support as specified in [Chapter 3](#).

1.3.3.6.2 Shore station IMAs/FRCs perform I-level maintenance in support of assigned station and squadron aircraft, associated material, and equipment. They are also responsible for providing formal and informal I-level training. Certain IMAs perform selected D-level maintenance for an entire logistic area, when recommended by the ACC/TYCOM and approved by COMNAVAIRSYSCOM.

1.3.3.6.3 The OMD of NASs and designated naval stations perform O-level maintenance on assigned aircraft and provide flight line services for transient aircraft. Under special circumstances, stations will provide such higher level maintenance assistance as may be within their capability.

1.3.3.6.4 Certain NASs, as designated by CNO and implemented by COMNAVAIRFOR, perform only O-level and selected I-level maintenance functions. They rely on area commanders for the remaining I-level maintenance support.

1.3.3.6.5 Selected activities are provided mobile facilities by COMNAVAIRSYSCOM for approved emergency and mobilization plans.

1.3.3.6.6 Certain Navy activities are assigned to COMNAVAIRSYSCOM for command control. COMNAVAIRSYSCOM's responsibility for these activities includes mission planning, facility development, workload planning, internal organization and procedures, budgeting, funding, accounting, staffing, and use of personnel, funds, material, and facilities.

1.3.4 Support Responsibilities

1.3.4.1 COMNAVSUPSYSCOM provides material in support of the operation and maintenance of aeronautical equipment. In this regard, every effort is made to have material located when and where it is needed. The intent is to make the relationships between the supplier and the user as simple as possible within the boundaries of logistic directives published by higher authority.

1.3.4.2 COMNAVAIRSYSCOM is responsible for research, design, development, test, acquisition, and logistic support of all aviation procurements relating to Navy and Marine Corps aircraft, missile targets,

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associated material, and equipment. As the technical manager for aviation maintenance, COMNAVAIR-SYSCOM shall:

- a. Provide guidance on procedures, technical direction, and management review at each level of maintenance.
- b. Provide aviation maintenance procedural documents in sufficient scope and depth to clearly define the maintenance functions, organizations, and responsibilities to perform these functions.
- c. Implement and maintain a complementing METCAL Program as a part of the NAMP.
- d. Assist CNO and others in developing training programs for officer and enlisted personnel assigned to aviation maintenance. Provide technical and logistic aviation systems support in drafting NTSPs and the determination of manpower requirements.
- e. Provide aviation maintenance material allowance lists, together with lists of facilities which are authorized, available, and required for fleet and shore activities.
- f. Make recommendations concerning design of the MDS/NALCOMIS to reduce redundant, time consuming, and unnecessary reporting; and ensure MDS/NALCOMIS is compatible throughout all levels of maintenance.
- g. Serve as Functional Manager for Aviation Logistics Information Systems per NAVAIRINST 5230.11. Ensure NALCOMIS maintenance systems requirement documents are kept current and reflect proper justification for policies and improved business procedures and track the changes to ensure benefits were achieved.
- h. Provide NAMP instruction support for COMNAVAIRFOR (N422C).
- i. Provide selected ACC functional support to all COMNAVAIRSYSCOM field activities.
- j. Provide fleet aviation performance improvement support.
- k. Provide on-site COMNAVAIRSYSCOM field service representative support to activities requesting assistance.
- l. Develop and maintain MISs which directly support the fleet.
- m. Plan, design, develop, implement, and support all information decision support systems which support the total life cycle of aeronautical equipment.
- n. Provide technical support related to naval aviation resource analysis, maintenance engineering, logistics engineering, and logistics support program implementation.
- o. Provide support of all aviation maintenance trainers and weapons system training programs and managing D-level aircraft training courses.

1.3.4.3 COMNAVAIRSYSCOM provides technical direction in matters concerning naval aircraft, missile targets, and associated material, except as directed by CNO. A major portion of this effort is done using a centralized system for the issue and control of TDs. Technical direction does not relieve commands from the responsibility of keeping appropriate seniors in the chain of command informed of material conditions affecting operational readiness. If combat necessity or operational necessity precludes TD compliance within specified time limits, the reporting custodian shall keep CNO, COMNAVAIRFOR, COMNAVAIR-

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SYSCOM, and other interested commands fully informed. Any authority operating or having operational control over aircraft continues to have full authority and responsibility to impose such additional operating restrictions as may be considered prudent. ACCs/TYCOMs and other operating force commands shall continue to concern themselves with TD matters. Requests for changes and amplification to technical direction shall be addressed to COMNAVAIRSYSCOM. When fleet operational requirements cannot be met as a result of limitations imposed through the TD Program, recommendations shall be provided to CNO. COMNAVAIRSYSCOM will maintain the CM Program for configuration identification, technical reviews, verification, validation and control processes, kit management, TDSA, T/M/S CM baseline, and Scheduled Removal Components Repository Program.

1.3.4.4 COMNAVAIRSYSCOM provides the fleet an improved capability to manage aircraft maintenance and configuration with NTCSS Optimized OMA NALCOMIS. NTCSS Optimized OMA NALCOMIS also provides the capability to track maintenance resources and to document aircrew data and system usage information. The CM portion of NTCSS Optimized OMA NALCOMIS offers a full range of capabilities to manage aircraft, engines, ALSS, CADs, SE, MME, component configuration, and the following:

- a. Provides an accurate listing of all components installed or uninstalled on the aircraft that are considered tracked items.
- b. Tracks usage indicators for life limited components, for example, LUI, FLE, Tactical Air Computer, TSN and TSO.
- c. Maintains configuration items history records.
- d. Forecasts scheduled maintenance.

1.3.4.5 COMNAVAIRSYSCOM is the Baseline Manager and is responsible for creating, loading, and maintaining the aircraft or weapons systems baseline data that belongs to the respective program manager. There shall be a Baseline Manager identified for each aircraft T/M/S and any other system that uses NTCSS Optimized OMA NALCOMIS for maintenance management. The Baseline Manager shall have in-depth knowledge of the aircraft or weapons system for which they have responsibility. It is the Program Manager's responsibility to assist the Baseline Manager in determining the scope of the baseline for their individual platform.

1.3.4.5.1 The baseline consists of the following components:

- a. Configuration Baseline. Equipment is the basis of CM. To validate the ongoing disassembly and reassembly of equipment, an Equipment Configuration Baseline is required. Once this baseline is put in place, actual configurations of the equipment can be tracked.
- b. Usage Baseline. As aircraft become more sophisticated, maintenance will be driven with advanced LUIs such as fatigue cycles and thermal cycles. Prior to defining maintenance based on these parameters, there must be a Usage Baseline established to define the usage data that is available for each equipment type in the Configuration Baseline. Once this is in place, usage can be correctly tracked and accumulated against the right equipment.
- c. Maintenance Baseline. Once Configuration Baselines and Usage Baselines have been defined, the Maintenance Baseline can be assembled. Maintenance Baseline defines the scheduled preventive maintenance, PMIC, MRCs, TDs, and other service bulletins as well as the potential corrective repairs that are anticipated such as conditional and unscheduled maintenance. Maintenance Baseline is integrally linked with the Configuration Baseline and Usage Baseline. Database changes, new PM task requirements, and task interval changes must be provided to the Baseline Manager. Baseline data changes will be electronically transmitted to data users at O-level and I-level maintenance activities.

1.3.4.5.2 The Baseline Manager shall:

a. Ensure each baseline allows the CM module to track assets and encapsulate the required maintenance data to enable all levels of maintenance to continue maintenance processes as assets move between maintenance levels.

b. Ensure the NTCSS Optimized OMA NALCOMIS baseline is built upon the WUC structure for each end item identified by a TEC. After creating the WUC structure:

- (1) Assign inventory classes to the WUC items.
 - (2) Assign/create inventory subclasses to the WUC items.
 - (3) Assign/create part numbers to the WUC.
 - (4) Identify multiple part numbers per WUC.
 - (5) Identify incompatibilities between parts.
 - (6) Identify usage data source(s) for each end item and assemblies.
 - (7) Create data definitions corresponding to the data sources.
 - (8) Assign/create usage parameters to each usage definition.
 - (9) Ensure usage parameters received from automated interfaces are named in the CM module by the same terms used by the providers of that data.
 - (10) Identify task class and subclass of CM module.
 - (11) Set task recurring and auto-create attributes.
 - (12) Complete contents of baseline task definition tab pages.
 - (13) Set all baseline tasks to active.
 - (14) Set up task plans.
- c. Ensure, at a minimum, the following components are built into the baseline:
- (1) Life limited components.
 - (2) AESRs.
 - (3) ASRs.
 - (4) MSRs.
 - (5) SRCs.
 - (6) EHRs.
 - (7) Structural life limited components.
 - (8) TCRs (maintenance-significant items that are repairables and consumables).

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NOTE: The Baseline Manager shall coordinate with the Program Manager to determine the scope of the baseline for their individual platform.

d. Ensure, at a minimum, the following reference material is used to gather the information required in subparagraph 1.3.4.5.2c above:

- (1) PMIC.
- (2) MIMs.
- (3) IPB.
- (4) WUC manual.
- (5) Aircraft logbook, AESRs, and associated records.
- (6) NAVAIR 00-500C.
- (7) NAT-04.
- (8) TDSA reports.
- (9) ECPs.
- (10) MRCs.
- (11) QECA MRCs.
- (12) AWSE MRCs.
- (13) IRAC trackers and weekly summary of issued TDs.
- (14) NAVSUP Publication 2003.

(15) This instruction, OPNAVINST 3110.11, OPNAVINST 5442.4, OPNAVINST 8000.16, and NAVAIR 01-1A-509 (series).

NOTE: Baseline Managers must be on distribution for all above material.

e. Establish a working relationship with the respective platform ISSC. Coordination with respect to issuing changes to the baseline is essential. Baseline Managers must ensure all changes and revisions to MRC decks, TDs, part numbers, assemblies, PMICs, WUC manuals, etc., are built into the baseline and replicated to their respective foundation tiers when paper copies are issued.

f. COMNAVAIRSYSCOM (AIR-6.0) provides maintenance and material support necessary for fleet training and readiness. COMNAVAIRSYSCOM (AIR-6.0) shall:

- (1) Execute assigned aviation D-level maintenance programs.
- (2) Execute contracts in support of D-level maintenance.
- (3) Establish and implement the procedures and controls necessary for executing budgets.
- (4) Provide D-level resource management support.

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g. The FRC shall:

- (1) Maintain and operate facilities and perform a complete range of D-level rework operations on designated weapon systems, accessories, and equipment.
- (2) Manufacture parts and assemblies (as required).
- (3) Provide engineering services in the development of changes in hardware design.
- (4) Furnish technical and other professional services on aircraft maintenance and logistics problems.
- (5) Perform other levels of aircraft maintenance for eligible activities, upon specific request or assignment.
- (6) Perform other functions as directed by COMNAVAIRFOR in conjunction with COMNAVAIR-SYSCOM.

h. NAVICP is responsible for material support of the NAMP. Aviation material consists of spare parts for aircraft, engines, avionics, electrical, accessory, and safety equipment; SE, common and peculiar; and aeronautical photographic and meteorological equipment. NAVICP shall:

- (1) Compute aviation material requirements in both range and depth. This responsibility includes conducting and coordinating provisioning conferences and identification and transfer of items to be managed by other cognizant ICPs.
- (2) Budget for and fund all assigned aviation material requirements.
- (3) Procure material directly from industry or other government agencies.
- (4) Allocate COMNAVAIRSYSCOM procured material to stock points, distribute material to fill replenishment stock requirements, and referral of requisitions to stock points to meet requirements.
- (5) Dispose of material in excess of system requirements, including SE, when authorized by COMNAVAIRSYSCOM.
- (6) Maintain aeronautical spares and spare parts catalogs. The catalog function includes obtaining NSNs from the Defense Logistics Service Center.
- (7) Determine system asset rework requirements of repairable components to be processed by naval, interservice, or commercial rework facilities.
- (8) Develop, issue, and update ARRs and allowance and load lists applicable to the NAMP.
- (9) Provide primary material support for air launched weapons.

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DEPARTMENT OF THE NAVY
CARRIER AIRBORNE EARLY WARNING SQUADRON
ONE ONE FIVE
FPO AP 96601-6403

In Reply Refer To:
4790
Ser 40/011089
06 Jun 07

From: Commanding Officer, CARAEWRON ONE ONE FIVE
To: Commander, Naval Air Systems Command (AIR-6.7.2.1)

Subj: CORRECTION RECOMMENDATION TO COMNAVAIRFORINST 4790.2

Ref: (a) COMNAVAIRFORINST 4790.2

1. Recommend corrections to reference (a), Chapter 10, Figure 10-1. Correct the ISSC for LOX converters to read PMA-202 vice PMA-205.
2. This correction recommendation corresponds with the current realignment.
3. Point of contact is AZCM C. Brown, DSN 123-4567, email cl.brown@navy.mil.

D. W. WILLIAMS
By direction

Figure 1-1: Correction Recommendation Letter (Sample)

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DEPARTMENT OF THE NAVY
STRIKE FIGHTER SQUADRON ONE TWO FIVE
NAVAL AIR STATION
LEMOORE, CA 93246-5125

In Reply Refer To:
4790
Ser 10/0760
06 Jun 07

From: Commanding Officer, Strike Fighter Squadron 125
To: Commander, Naval Air Systems Command (AIR-6.7.2.1)
Via: (1) Commander, Strike Fighter Wing, U.S. Pacific Fleet
(2) Commander Naval Air Force, U.S. Pacific Fleet

Subj: CHANGE RECOMMENDATION TO COMNAVAIRFORINST 4790.2

Ref: (a) COMNAVAIRFORINST 4790.2

1. Recommend deleting the first sentence of reference (a), Chapter 12, paragraph 12.1.4.2, and replacing it with the following: "The below listed conditions requiring FCFs are minimal and mandatory unless type specific requirements have been established otherwise in the applicable NATOPS. This does not preclude operational commanders from imposing additional requirements of the scope and frequency deemed necessary."

2. This change recommendation would allow type specific requirements if they are needed. Under current NAMF direction, all aircraft, regardless of type, must adhere to the same requirements for FCFs. With the introduction of Fourth Generation aircraft, it has become increasingly apparent there is need for change. Due to the dramatic engineering improvements in the areas of redundancy, reliability and maintainability, the differences between Fourth Generation aircraft and their predecessors have grown immensely. It is this diversity that requires allowance of type specific FCF requirements when deemed appropriate.

3. Point of contact is AEC D. Adams, DSN 123-4567, email dp.adams@navy.mil.

G. S. ROBINSON
By direction

Figure 1-2: Change Recommendation Letter (Sample)

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DEPARTMENT OF THE NAVY
NAVAL TEST WING ATLANTIC
22541 MILLSTONE ROAD
PATUXENT RIVER, MD 20670-5304

In Reply Refer To:
4790
Ser 55IM90A/014
5 May 07

From: Commander, Naval Test Wing Atlantic
To: Commander, Naval Air Forces (N422)
Via: Commander, Naval Air Systems Command (5.0.D.4)

Subj: DEVIATION REQUEST: SUPPORT EQUIPMENT OPERATOR TRAINING AND
LICENSING PROGRAM PHASE I INSTRUCTORS

Ref: (a) COMNAVAIRFORINST 4790.2

1. The Aircraft Intermediate Maintenance Department requests authority to deviate from reference (a) Chapter 10, paragraph 10.16.4.6 to designate personnel without NEC 9502 as Phase I instructors.
2. Reference (a) process change 2H0138 eliminates the NEC 9502 requirement for Phase I instructors and was approved.
3. Point of contact is Aircraft Intermediate Maintenance Department Support Equipment Division Officer: AZC J. Grant, DSN 123-4567, Comm (301) 123-4567, email j.grant@navy.mil.

W. P. BENNETT
Capt USN

Copy to:
OPNAV (N781)
COMNAVAIRSYSCOM (AIR-6.7.2.1)
NTWL (Code 55IM90A)

Figure 1-3: Deviation Request Letter (Sample)

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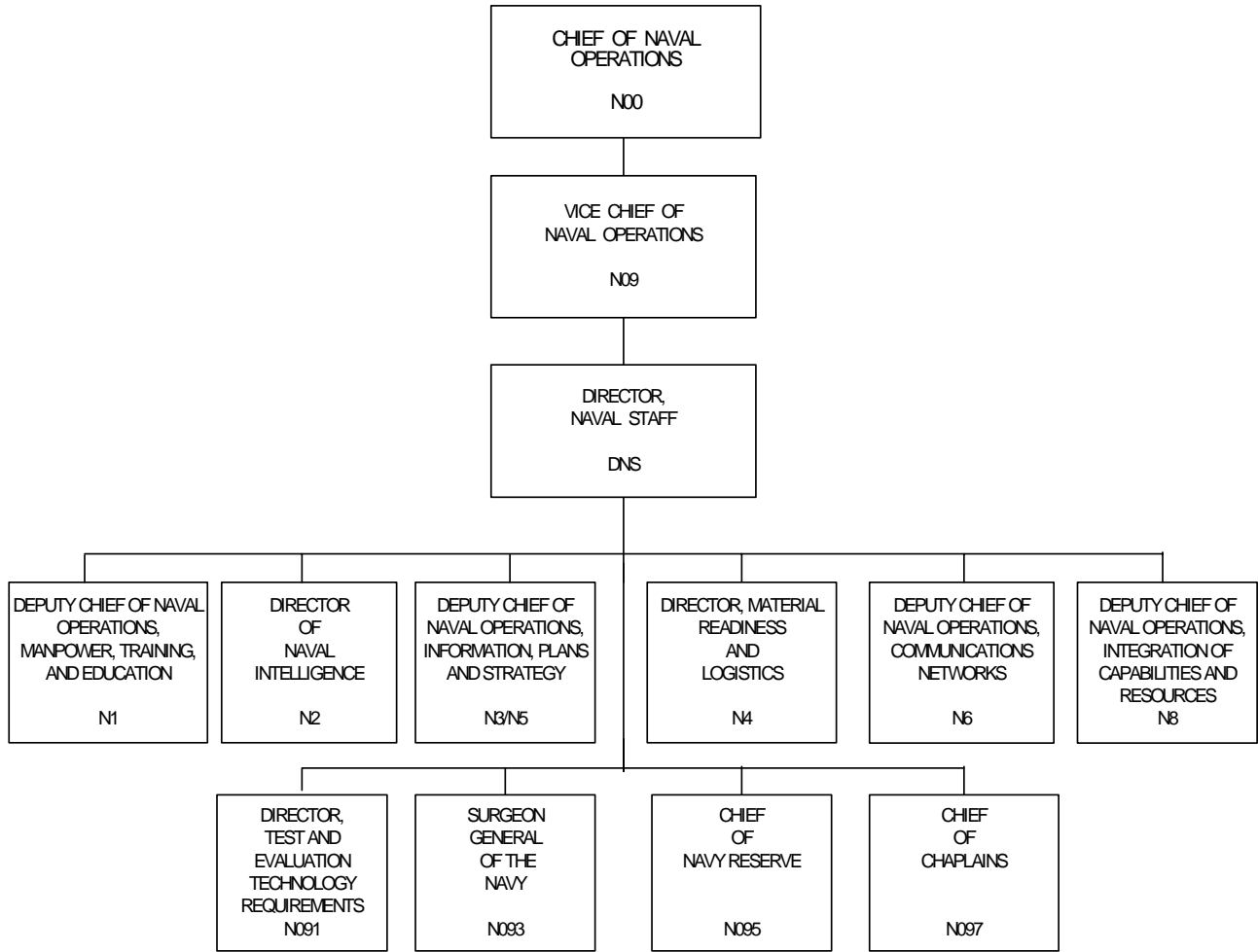


Figure 1-4: Office of the Chief of Naval Operations Organization Chart

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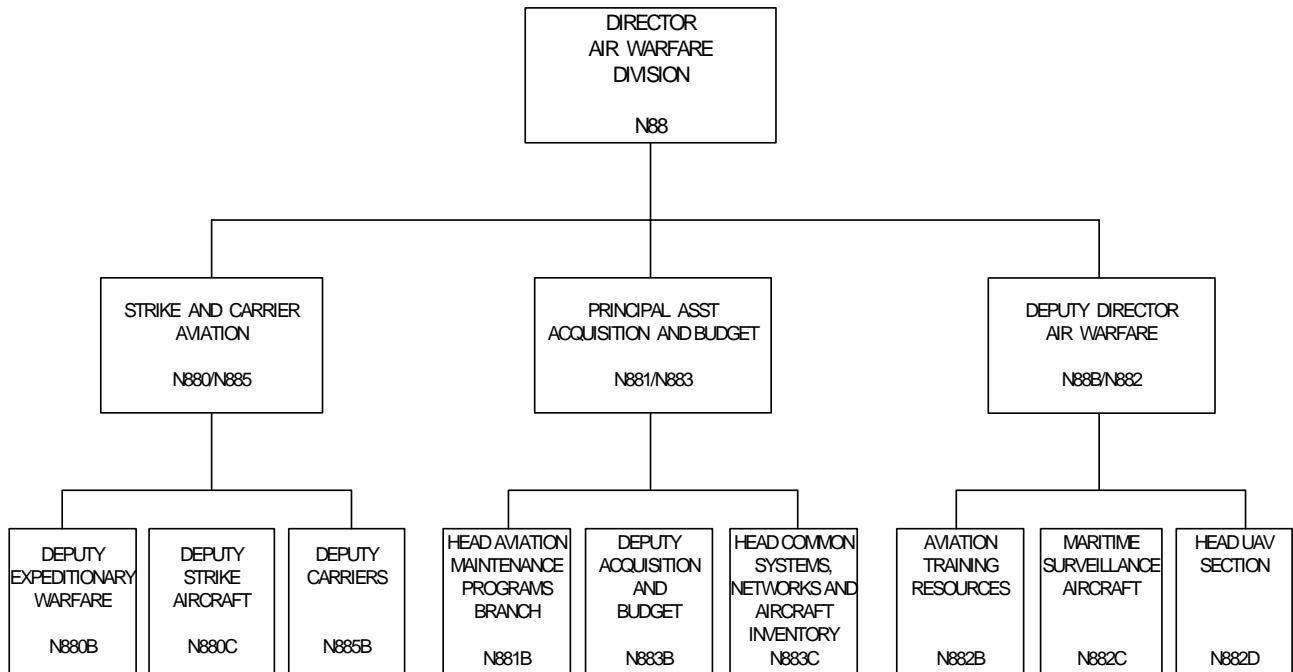


Figure 1-5: Director, Air Warfare Division (N88) Organization Chart