DEPARTMENT OF THE NAVY
SPACE AND NAVAL WARFARE SYSTEMS COMMAND
4301 PACIFIC HIGHWAY
SAN DIEGO, CA 92110-3127

SPAWARINST 4720.3C
SPAWAR 05F
19 March 1998

SPAWAR INSTRUCTION 4720.3C

From: Commander, Space and Naval Warfare Systems Command

Subj: SPAWAR POLICY, PROCEDURES AND RESPONSIBILITIES FOR PLANNING AND INSTALLING SHIPBOARD COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE (C4ISR) FLEET MODERNIZATION PROGRAM (FMP) UPGRADES

Ref: (a) NAVSEA SL720-AA-MAN-010 Fleet Modernization Program (FMP) Management and Operations Manual - Volume 1
(b) NAVSEA SL720-AA-MAN-020 Fleet Modernization Program Management and Operations Manual - Volume 2
(c) OPNAVINST 4720.2G Fleet Modernization Program Policy
(d) NAVSEAINST 4720.11C Shipboard Installation and MODs Performed by Alteration Installation Team (AIT)
(e) NAVSEA Technical Specification 9090-310A Ship Alteration (SHIPALT) Accomplishment by Installation Teams
(f) NAVSEAINST 4720.14A Temporary Alterations to Active Fleet Submarines
(g) CINCPACFLT/CINCLANTFLT INST 4720.3 of 5 Jun 96
(h) SPAWAR Systems Engineering Board Charter of 13 Dec 96
(i) SPAWAR ltr 2300 Ser 05F22C/389 of 14 Mar 96, "Alteration Installation Team (AIT) Quality Management Board (QMB) Report"
(j) SPAWARINST 4130.1M, Configuration Management
(k) MIL-STD-2039, Military Standard for Field Change and Field Change Kits; Preparation of

Encl: (1) SPAWAR Integrated Shipboard Modernization Process Summary (w/Figure 1)
(2) SPAWAR Concept of Operations (Process) (w/Figure 2)
(3) FLTCINC/SPAWAR Planning and Installation Process (w/Figure 3 and 4)
(4) Fleet Modernization Program (FMP) Process Summary (w/Figure 5)
(5) SPAWAR C4ISR Installation Management Checklist for Chief Engineer/Program Directorates
(6) SPAWAR C4ISR Installation Management Checklist for SPAWARSYSCEN (SSC)San Diego/SSC Charleston/SSC Chesapeake

1. Purpose. To establish policies, procedures and responsibilities for upgrading and modernizing SPAWAR C4ISR equipment and systems aboard surface ships and submarines, consistent with references (a) and (b), SPAWAR Concept of Operations, and the

FLTCINC/SPAWAR Planning and Installation Process as contained in enclosures (1) through enclosures (4)

2. Cancellation. SPAWARINST 4720.3B of 22 May 1991 and SPAWARINST 4720.4A of 11 September 1990.

3. Background.

a. The process of upgrading and modernizing SPAWAR C4ISR systems aboard ship is a function of the FMP as described in references (a) through (f). The unique operational nature of installing SPAWAR C4ISR equipment (i.e., installations scheduled during overhauls and installed by yard personnel or Alteration Installation Teams(AIT); installations scheduled pierside and installed by an AIT; the speed of change of associated technology and the resulting need for rapid capability upgrade; and the SPAWAR C4ISR configuration of Joint Task Groups/Battle Groups/Amphibious Ready Groups (JTG/BG/ARG) and Middle Eastern Forces (MEF)) has necessitated the augmentation to standardize references (a) and (b) procedures to optimize the speed, and therefore the planning and installation process of SPAWAR shipboard modernization. The process must accommodate the requirements of good engineering practice, provision of fully Integrated Logistics Support (ILS), thorough coordination with the shipboard modernization efforts of COMNAVSEASYSCOM and COMNAVAIRSYSCOM and their aligned PEOs, and maintenance of firm configuration control at the class platform, system and equipment levels.

b. This planning and installation process must also accommodate three distinctly different schedule baselines: the cyclic schedule dictated by the JTG/BG/ARG deployments; the cyclic POM/budget process schedule dictated by DoD and Navy's Planning, Programming and Budgeting System (PPBS); and the FMP program, Ship Alteration (SHIPALT) and availability package development processes. A common planning baseline integrating these processes is therefore required.

c. With the promulgation of this instruction, SPAWAR's Concept of Operations and the publication of reference (g) to augment the FMP processes established in references (a) through (f), and the concepts of the FMP Agreement between COMNAVSEASYSCOM and COMSPAWARSYSCOM, a firm foundation now exists from which to integrate the necessary elements. This will allow for availability of the most accurate and timely planning detail for establishment of resource requirements at critical POM and budget milestone dates. It also allows for well-engineered installation of the most modern SPAWAR C4ISR enhancements, commensurate with JTG/BG/ARG composition and deployment schedules and well planned ILS in place to support deployment preparation and deployed operational unit requirements.

4. Scope. This instruction applies to all SPAWAR C4ISR equipment and system installations and upgrades in active and reserve surface ships and submarines.

5. Policy. The following policy shall govern the execution of the installation and upgrade of all SPAWAR C4ISR equipment aboard ships and submarines:

a. All planned installations and operational training will be completed and tested at a designated point prior to commencement of Fleet training exercises, referred to as the Target Configuration Date (TCD), to support training work-ups and JTG/BG/ARG Systems Integration Testing (BGSIT).

b. The procedures outlined in the FMP Process Summary, enclosure (4) will be accomplished prior to shipboard installation.

c. All SPAWAR-funded shipboard AIT installations, upgrades, field changes and ship visits not planned or scheduled as part of ship overhauls or other scheduled availabilities will be scheduled at the TYCOM scheduling conference or directly with the TYCOMS on an exception basis. Installations scheduled directly with the TYCOMS are still required to satisfy all the requirements of this instruction.

d. Installing activities will not accomplish a SPAWAR-funded AIT installation, upgrade, field change or ship visit if it is not scheduled in a ship overhaul or if it is not scheduled at the Quarterly TYCOM Scheduling Conference or with the TYCOM (on an exception basis).

e. Installing activities will coordinate any TYCOM-funded installation, upgrade, field change or ship visit that may interface with a SPAWAR-funded installation and will make every attempt to economize those installations that are to be simultaneously accomplished.

f. The installation exception process is established as part of reference (g) to accommodate emergent requests and high priority approved exceptions to the normal planning process (see also enclosure (3), paragraph 5.h).

g. All post-TCD installations must have an approved FLTCINC waiver.

h. Installing activities will not accomplish a post-TCD installation without an approved FLTCINC waiver.

i. SPAWAR C4ISR Superintendents shall coordinate the total SPAWAR C4ISR installation package (installations, modifications, field changes and SAR/SID/ILS tracking) for the claimancy. Installation tasking and funding shall be reported to the SPAWAR C4ISR Superintendent and no work shall be accomplished without the full participation of the SPAWAR C4ISR Superintendent.

6. Process Overview.

a. Enclosure (1), Figure (1) displays a summary of the major elements of the four (4) operational processes and how they interact. The individual process steps are shown horizontally

and the points of interaction are shown vertically. It is an idealized graphic because PPBS is a cyclic, calendar-based process. The FMP baseline is measured relative to many different installation and availability dates and JTG/BG/ARG configuration is operating schedule-based. The important features of the diagram are the relative relationships of individual process elements and the flow of information necessary to attain the installation TCD objective.

b. It is not the intent of this instruction to describe the PPBS, details of which are available in standard references. It is rather to correlate the PPBS milestones with the steps in the SPAWAR Concept of Operations contained in enclosure (2), the details of the FLTCINC/SPAWAR Planning and Installation Process contained in reference (g) and enclosure (3) and the FMP summarized in enclosure (4).

7. Process Summary Detail. The important information flow/process integration points are the following (refer to enclosure (1), Figure (1)):

a. Modernization requirement definition includes not only the definition of desired improvements, but also the FMP discipline of Configuration Control Board (CCB) review and approval, and sponsor concurrence. This step requires the flow of approved data to enter the POM process in the resource identification phase and initiation of the long-range design, procurement and ILS process for concepts approved to this point.

b. POM decisions emanating from OPNAV Sponsor Program Proposals (SPPs) are the major influences upon the size and content of the Class SPAWAR C4ISR Master Plans. The Class SPAWAR C4ISR Master Plans form the baseline for the three-year Work Plan.

c. The Work Plan is a dynamic three-year installation schedule that reflects the balance between the decisions stemming from the NAVCOMPT, OSD/OMB and Congressional budget revisions with the results of the SPAWAR/OPNAV Baseline Reviews, keeping the planned program within budget and hardware delivery constraints. The refined Work Plan is the basis for the SPAWAR JTG/BG/ARG C4ISR Baseline Message to the Fleet.

d. Upon budget and appropriation enactment, the continual round of fleet reviews, planning reviews and scheduling conferences during execution, are sources of coordinated data refining the Annual Implementation Plan to optimize the use of allocated resources and to refine plans as resources are reduced or reprogrammed.

e. The total process objective is for installations to be completed and ILS in place six months prior to a surface ship or submarine's deployment, to allow for Pre-Overseas Movement operations and training to be conducted with the same shipboard suites that will be utilized during deployment.

8. Responsibilities. SPAWAR responsibilities for planning and installing SPAWAR C4ISR upgrades aboard ship are defined in enclosures (2) through (4).

9. Action.

a. Addressees will implement the provisions of this instruction in the planning and installing of SPAWAR C4ISR upgrades aboard ships and submarines. This will be accomplished within the policy guidelines of paragraph 5 using the procedures described in references (a) through (k) and the content of enclosures (2) through (4). Specifically, the SPAWAR FMP Process is governed by figure (5), enclosure (4) and described in this instruction.

b. Enclosure (5) provides SPAWAR managers with a detailed summary of important steps in the modernization planning and execution phases for each SHIPALT. It is provided as guidance for managers in developing tasking statements and to assist in ensuring initiation and verification of accomplishment of each step.

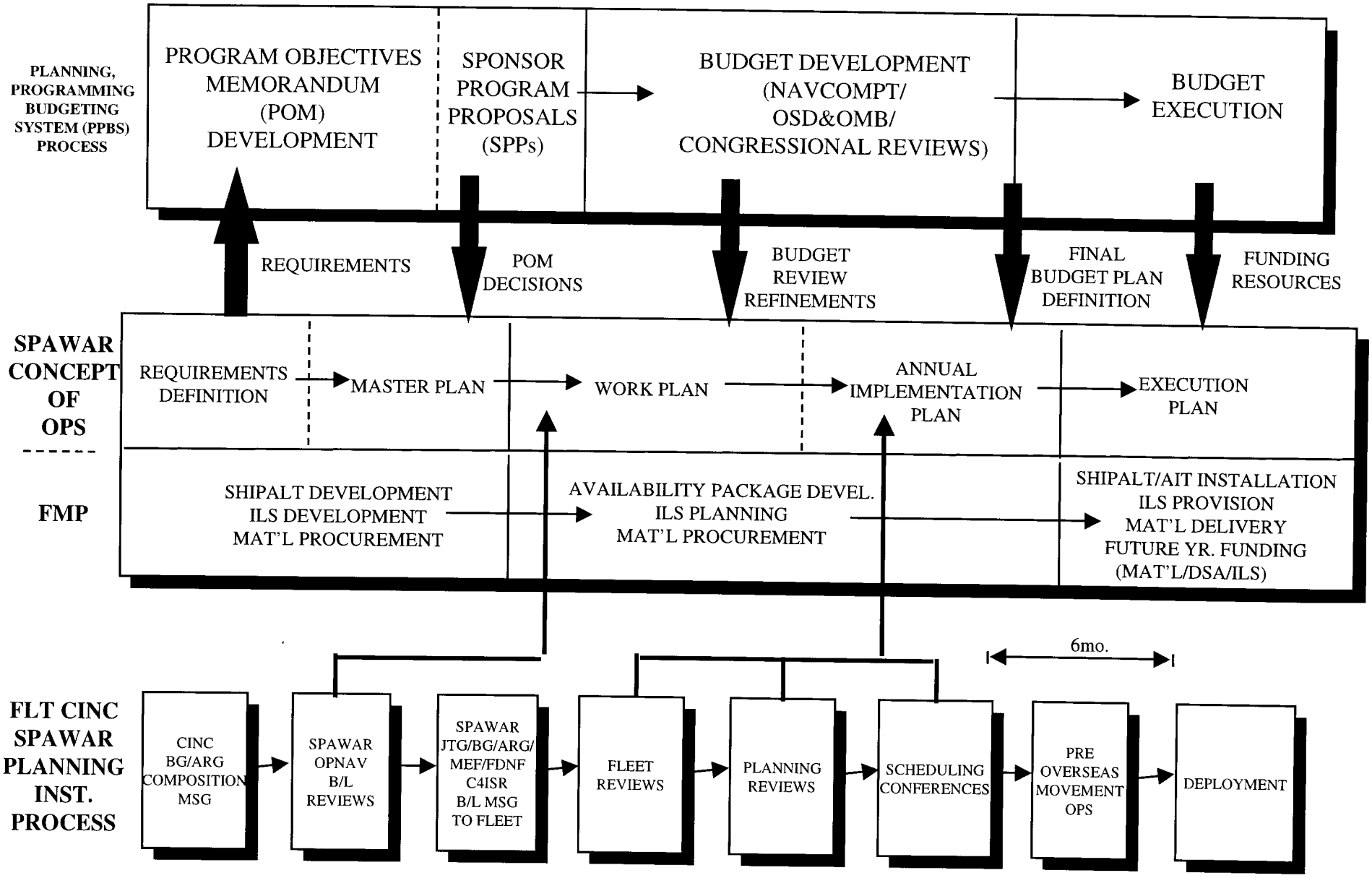
c. Enclosure (6) is provided as guidance to the installing activity and contains a detailed summary of important steps that are required in the execution of the installation phase of the SHIPALT.

d. SPAWAR Systems Centers are the primary claimancy agents responsible for execution of SPAWAR C4ISR Program Managers' tasking with regards to SHIPALT installations. The SPAWAR C4ISR Superintendents are SPAWAR's facilitating agents coordinating installations utilizing a claimancy wide database whose records are required to be routinely updated to support SPAWAR C4ISR scheduling with TYCOMS.

G.F.A. Wagner
Rear Admiral, U. S. Navy

Distribution:
SPAWAR List 3
SNDL Part II
FKQ (SPAWARSYSCENs)

SPAWAR INTEGRATED SHIPBOARD MODERNIZATION PROCESS SUMMARY



Enclosure (1)

Figure (1)

SPAWAR CONCEPT OF OPERATIONS (PROCESS)

1. Background. The SPAWAR Concept of Operations (enclosure (1), Figure (1)) that governs the accomplishment and upgrade of SPAWAR C4ISR equipment and systems aboard surface ships or submarines is an outgrowth of the SPAWAR Corporate Execution and Implementation Plan and a result of SPAWAR Executive Steering Group decisions.

2. Objective. Ensure at the start of each execution year that the efforts of all elements of the SPAWAR claimancy are in accordance with the Department of the Navy vision and SPAWAR's FMP planning and execution, and will result in the delivery of integrated, interoperable information systems and services to the fleet.

3. Components:

   a. Class SPAWAR C4ISR Master Plans

   b. Work Plan

   c. Annual Implementation Plan

   d. Annual Execution Plan

   e. Quarterly updates to the Annual Implementation Plan

4. Information Flow See SPAWAR Concept of Operations Process, enclosure (2), Figure (2).

5. Process Details.

   a. Class SPAWAR C4ISR Master Plan.

(1) A multi-year class specific plan designed to implement the Navy's portion of the JCS "SPAWAR C4ISR For The Warrior" (C4IFTW) concepts and complement/supplement the "Copernicus...forward" and "Naval SPAWAR C4ISR Implementation Plan". It is intended to provide strategy for meeting existing and future SPAWAR C4ISR requirements for each ship class. It serves as a configuration reference and integration plan for current and planned SPAWAR C4ISR systems on each ship class.

(2) The Class SPAWAR C4ISR Master Plan is the coordinated baseline for planning, programming and budgeting. The Master Plan is the primary authoritative document for planning, organizing and controlling the end products of the Navy's

SPAWAR C4ISR programs and is the focal point through which advances in SPAWAR C4ISR systems are coordinated and integrated.

(3) The Class SPAWAR C4ISR Master Plan describes current and projected ship class SPAWAR C4ISR requirements in support of defined missions, component programs, program development plans and program schedules. It involves the cooperative efforts of the CNO Fleet Ship Characteristics Improvement Panel(s) (SCIP) and SPAWAR Integrated Product Teams (IPT) to screen and prioritize potential SPAWAR C4ISR requirements provided from all sources. This includes the efforts of the Joint and Navy operating forces as well as SPAWAR Headquarters, field activities and Naval Laboratories. It is the baseline for SPAWAR Work Plans, Implementation Plans and Execution Plans.

b. Work Plan.

(1) The SPAWAR C4ISR Work Plan consists of all Class SPAWAR C4ISR Master Plans consolidated into one, three-year installation schedule (most immediate budget year plus next two outyears) of all SPAWAR C4ISR installations planned for surface ship and submarine classes. It is developed in hull and SHIPALT detail, by fiscal year (FY) of installation and includes all planned AIT installations as well as all installations planned during yard availabilities. The Work Plan contains the status of SAR and SID development for each SHIPALT, Battle Group and Fleet availability, installing activity, and ILS information. No funding is displayed, but the Work Plan is based upon budget allocations and hardware availability.

(2) The Work Plan is continually refined by budget decisions made during NAVCOMPT, OSD/OMB and Congressional budget reviews and by decisions reached during SPAWAR and OPNAV reviews in the SPAWAR/FLTCINC Planning and Installation Process. It serves as the database for the SPAWAR JTG/BG/ARG SPAWAR C4ISR baseline message to the Fleet, as well as the baseline from which material procurement decisions are made and initial cost estimates are developed (within budget constraints). The objective of the Work Plan is to attain SPAWAR C4ISR installations by TCD and/or allow for post-TCD installations as approved by the FLTCINCs.

c. Annual Implementation Plan.

(1) The Annual Implementation Plan is a reduction of the Work Plan to a one-year plan affected by budget constraints (most immediate budget year). One format is organized by Battle Group, in individual hull detail, showing the Target Configuration Dates (TCD) and installation dates in each quarter. Another format is organized by system depicting hulls, TCD dates and planned quarters for installations.

(2) This plan is refined from two principal sources: the results of NAVCOMPT, OSD/OMB and Congressional Budget Reviews; and decisions made in Fleet reviews,

planning reviews, annual FLTCINC Depot Level Scheduling Conferences and FLTCINC Quarterly TYCOM Scheduling Conferences. It contains refinements of the cost estimates from the Work Plan and includes the results of the matching of the procurement and installation budgets. The Annual Implementation Plan will be approved and signed by SPAWAR 00 prior to the beginning of the execution year.

d. Annual Execution Plan. Funding obligations to the Annual Implementation Plan become the Command Annual Execution Plan prior to the beginning of the execution year. It depicts and describes all overhaul, AIT and field change installations to be executed in the current fiscal year (FY), the funding budgeted for each program and the intended recipient of the funds or executor of each program. It is then refined into quarterly segments which represent the proposed installation plan to support the quarterly FLTCINC, Quarterly TYCOM AIT Scheduling Conferences, budget marks, and overhaul SHIPALT reprogramming. It focuses installation efforts on the most immediately accurate plan and is the baseline for all tasking and funding efforts.

e. SPAWAR Responsibilities:

(1) The SPAWAR Chief Engineer's Office for Implementation (SPAWAR 05) is responsible for coordinating the efforts of all participants in the development of all the Class SPAWAR C4ISR Master Plans, Work Plan, Implementation Plan and Execution Plan.

(2) The SPAWAR Deputy Chief Engineer for Implementation will conduct a review to include the following:

(a) Develop and recommend technical policy.

(b) Establish, improve and provide oversight of Command system engineering processes.

(c) Serve as the Command's Configuration Control Board.

(d) Serve as the primary coordination body for Command, Navy and Joint SPAWAR C4ISR issues.

(e) Provide the forum for technical information exchange across all Command organizations.

(f) Serve as the Command's primary technical interface with the Deputy Assistant Secretary of the Navy (DASN, SPAWAR C4ISR, EW and Space).

SPAWAR CONCEPT OF OPERATIONS
FLEET MODERNIZATION PROGRAM

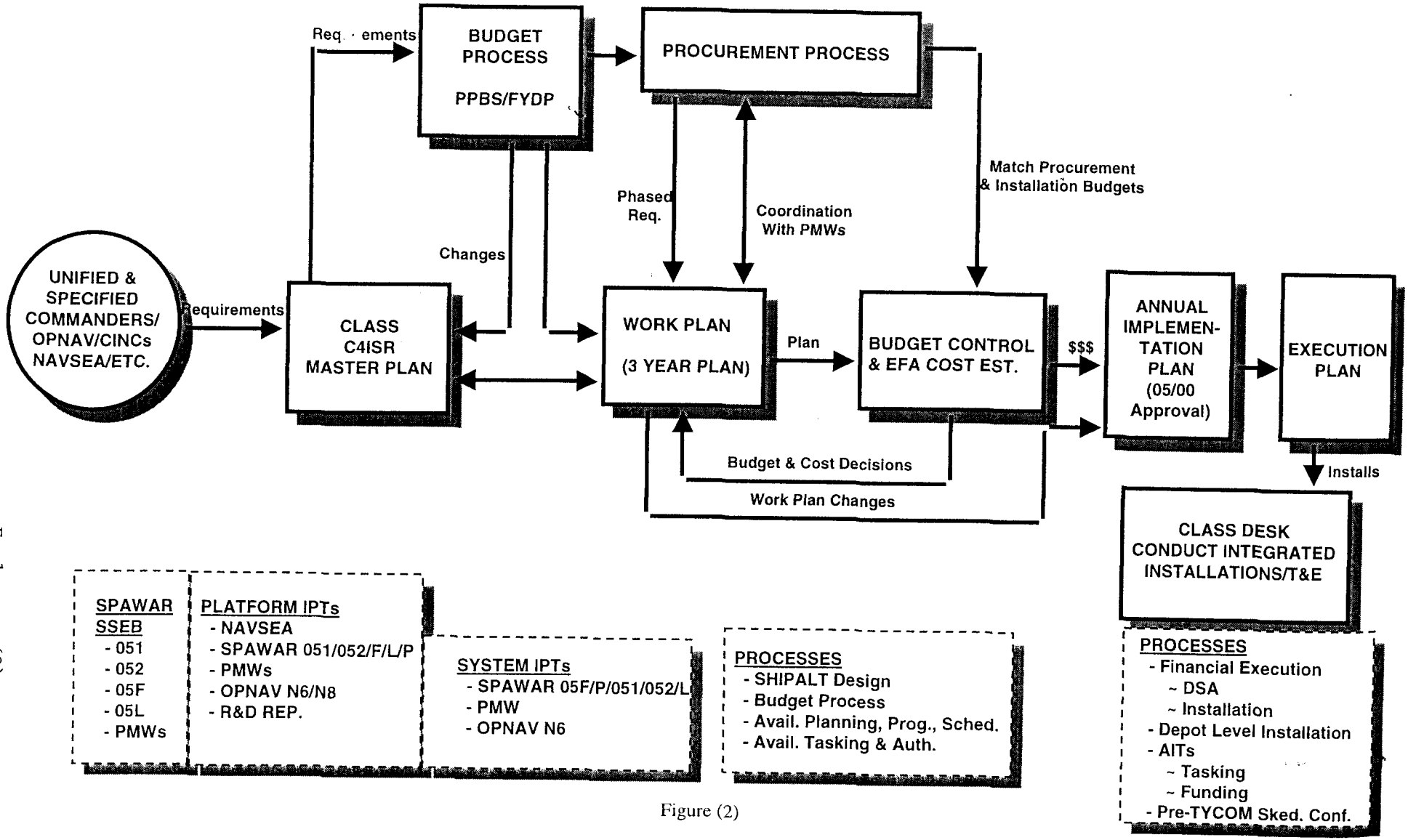


Figure (2)

FLTCINC/SPAWAR PLANNING AND INSTALLATION PROCESS

1. Background. This process was developed by a SPAWAR sponsored SPAWAR C4ISR Quality Management Board comprising representatives from OPNAV, PEOs, SYSCOMs, TYCOMs, SPAWAR Systems Centers, the Fleet and the training community. It addresses the implementation planning process for initiating, approving, scheduling and executing SPAWAR C4ISR system installations and upgrades, with a focus on JTG/BG/ARG composition and deployments. It was developed giving full consideration to the Fleet Modernization Program (FMP) process, tactical training strategy and the Navy's ability to fund, support and adequately train on these systems.

2. Objective. To provide orderly planning processes and procedures for efficient implementation of those SPAWAR C4ISR systems stemming from emergent technologies, and provide JTG/BG/ARG Commanders the capabilities of rapidly developing technologies to optimize warfighting capabilities and the consistency and interoperability of the JTG/BG/ARG SPAWAR C4ISR configuration. It complements and supplements the SPAWAR Concept of Operations Process, the DoD Planning, Programming and Budgeting process, and the FMP.

3. Components. (D = Deployment Date).

a. CINC JTG/BG/ARG Composition Message (D-20 months)
b. SPAWAR/OPNAV N6 SPAWAR C4ISR Baseline Review Meeting (D-19 months)
c. SPAWAR JTG/BG/ARG SPAWAR C4ISR Baseline Message (D-18 months)
d. Fleet Additional Requests (D-17 months)
e. SPAWAR C4ISR Deployment Planning Review Conference (D-16 months)
f. Scheduling Conferences (D-16 to D-12 months)
g. SPAWAR D-12 Funding Status Message (D-12 months)
h. Target Configuration Date (TCD) (D-6 months)
i. Installation Exception Process

4. Process Flow. See SPAWAR SPAWAR C4ISR Planning and Installation Process, enclosure (3), Figures (3) and (4).

5. Process Details/Responsibilities.

a. JTG/BG/ARG Composition Message (Milestone D-20 months). FLTCINCs provide composition in hull level detail, to Theater Commanders (USACOM, USPACOM, SOUTHCOM, EUCOM/CINCUSNAVEUR and CENTCOM), other FLTCINCs, TYCOMs, Numbered Fleet Commanders and SYSCOMs.

b. SPAWAR C4ISR Baseline Review Meeting (Milestone D-19 months). The meeting is chaired by SPAWAR Chief Engineer's Office, and includes representation

from OPNAV Resource Sponsors (CNO N6 and N8) to establish the SPAWAR C4ISR Baseline Configuration for the JTG/BG/ARG as defined in the Composition Message, based on known funding constraints. This meeting reviews all potential improvements including validated systems, FMP and non-FMP installations, as well as funded and unfunded programs.

c. JTG/BG/ARG Baseline Message (Milestone D-18 months). SPAWAR's Chief Engineer's Office promulgates a message to the FLTCINCs, TYCOMs and Numbered Fleet Commanders. FLTCINCs forward the message to Theater Commanders, Numbered Fleet Commanders forward it to JTG/BG/ARG Commanders, and TYCOMs forward it to surface ships and submarines. It consists of a consolidated baseline configuration list of SPAWAR C4ISR hardware installations, upgrades or software upgrades planned for completion by TCD, proposed for installation after TCD, or provided as Proof of Concept Demonstrations. SPAWAR will also include all recommended training to support these installations.

(1) This list is a result of coordinating approved installations from the SPAWAR C4ISR Baseline Meeting at D-19 as well as the refinement of SPAWAR Platform SPAWAR C4ISR Master Plans into the Work Plans and the Annual Implementation Plan.

(2) This list also represents a formal commitment of SPAWAR C4ISR resources (hardware and funding).

d. Fleet Additional Requests (Milestone D-17 months). Upon review of the JTG/BG/ARG SPAWAR C4ISR Baseline Message by all operating forces, proposed lists of additional SPAWAR C4ISR hardware, software, and training requests are provided as follows:

(1) Ships submit requests via Immediate Superior In Command to their respective TYCOMs.

(2) Immediate Superior In Command and/or Group staffs submit additional requests to FLTCINCs for endorsement, via Numbered Fleet Commanders, copy to SYSCOMs, TYCOMs and JTG/BG/ARG Commanders.

(3) Theater Commanders forward the proposed list to FLTCINCs.

(4) FLTCINCs forward the endorsed request list to SYSCOMs.

e. SPAWAR C4ISR Deployment Planning Review Conference (Milestone D-16 months). This conference is chaired by the FLTCINC, comprising representation by

f. Numbered Fleet Commanders, TYCOMs, COMOPTEVFOR, SYSCOMs, and JTG/BG/ARG Commanders. The conference objectives are to finalize SPAWAR C4ISR

requirements, identify assets, determine required training, review funding and fielding status and develop POA&Ms. FLTCINCs promulgate a message to OPNAV Resource Sponsors, identifying validated but unfunded SPAWAR C4ISR requests and to request funding.

g. Scheduling Conferences (Milestone D-16 to D-6 months). Several different scheduling conferences occur at regular intervals, during which SPAWAR C4ISR installations are considered. Conference results are combined into SPAWAR Implementation and Execution Plans and TYCOM installation plans. These conferences include:

(1) Annual FLTCINC Depot Level Availability Scheduling Conferences which provide the schedule baseline for all overhauls and major ship availabilities.

(2) TYCOM Quarterly Deployment Scheduling Conferences which refine ship operating schedules, defining TYCOM availability windows for SPAWAR C4ISR AIT installations and SPAWAR C4ISR training opportunities.

(3) Quarterly TYCOM AIT Scheduling Conferences at which all AIT installations are approved and scheduled, and at which all SPAWAR C4ISR AIT, field change installations and ship visits must be scheduled. Prior to the TYCOM Conferences, SPAWAR's Chief Engineer's Office schedules a pre-screening conference with NAVSEA Ship Program Managers (SPMs) to review the status of SAR and SID development and Integrated Logistic Support (ILS) information for each proposed AIT installation and to decide if the alteration is ready for installation.

h. SPAWAR D-12 Funding Status Message (Milestone D-12). A funding status is provided on SPAWAR funded installs of all requirements, requests, including emergent requests, to stabilize funding. An impact assessment will be provided and installs requiring Post-TCD waivers will be identified.

i. Target Configuration Date (TCD) (Milestone D-6 months). By this date all scheduled SPAWAR C4ISR installations should be complete and all subsystem testing, training and logistics provisions complete for baseline configuration systems. Operational training begins and proceeds through normal Pre-Overseas Movement (POM) evolutions, COMPTUEXs, Battle Group Systems Integration Testing (BGSIT) and FLEETEXs, to deployment.

j. Installation Exception Process. An approval process has been developed to validate emergent requests identified later than D-16 months, and allow for specifically

k. Approved installations including those post-TCD. The process requires the following steps which are also displayed on the following pages and Installation Exception Process (see enclosure (3), Figure (4), and basic Instruction, paragraph 5.f).

(1) Fleet requests emergent requests.

(2) TYCOM reviews requirement and coordinate with OPNAV, SYSCOMS, and BG/ARG Commander, to develop an impact statement.

(3) CINC review and endorsement after consideration of TYCOM and JTG/BG/ARG Commander recommendations, and sends unfunded request to OPNAV N6.

(4) Funding request/identification followed by SYSCOM/TYCOM installation scheduling and coordination.

(5) SPAWAR Responsibilities. In addition to the specific responsibilities identified in the preceding subparagraphs (a) through (h), the SPAWAR Chief Engineer's Office for Implementation (SPAWAR 05) will represent SPAWAR at the SPAWAR C4ISR Deployment Review Conference and all scheduling conferences. All SPAWAR PMWs shall provide installation and scheduling requirements to SPAWAR 05 prior to all conferences.

SPAWAR C4ISR Planning/Installation Process

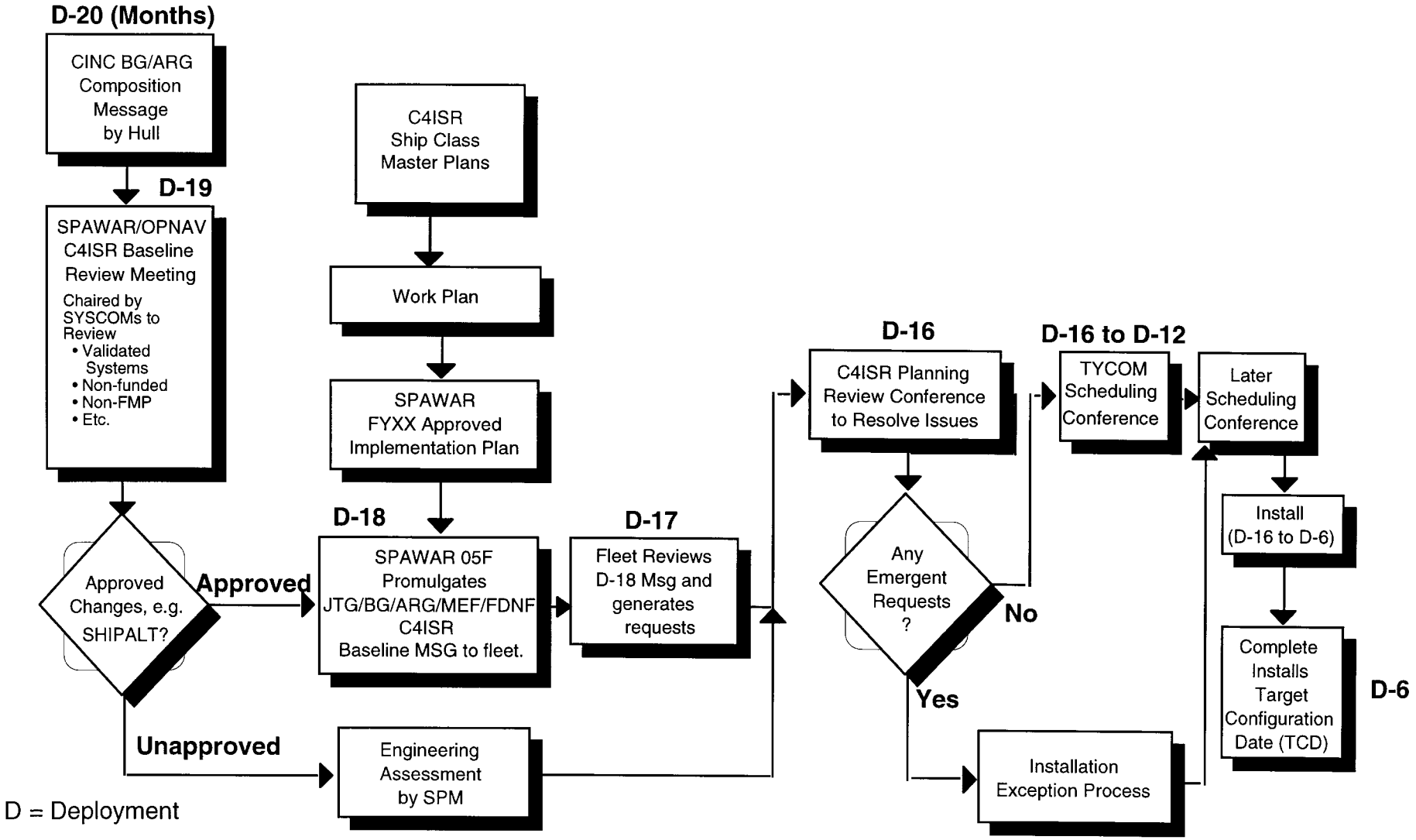


Figure (3)

Installation Exception Process

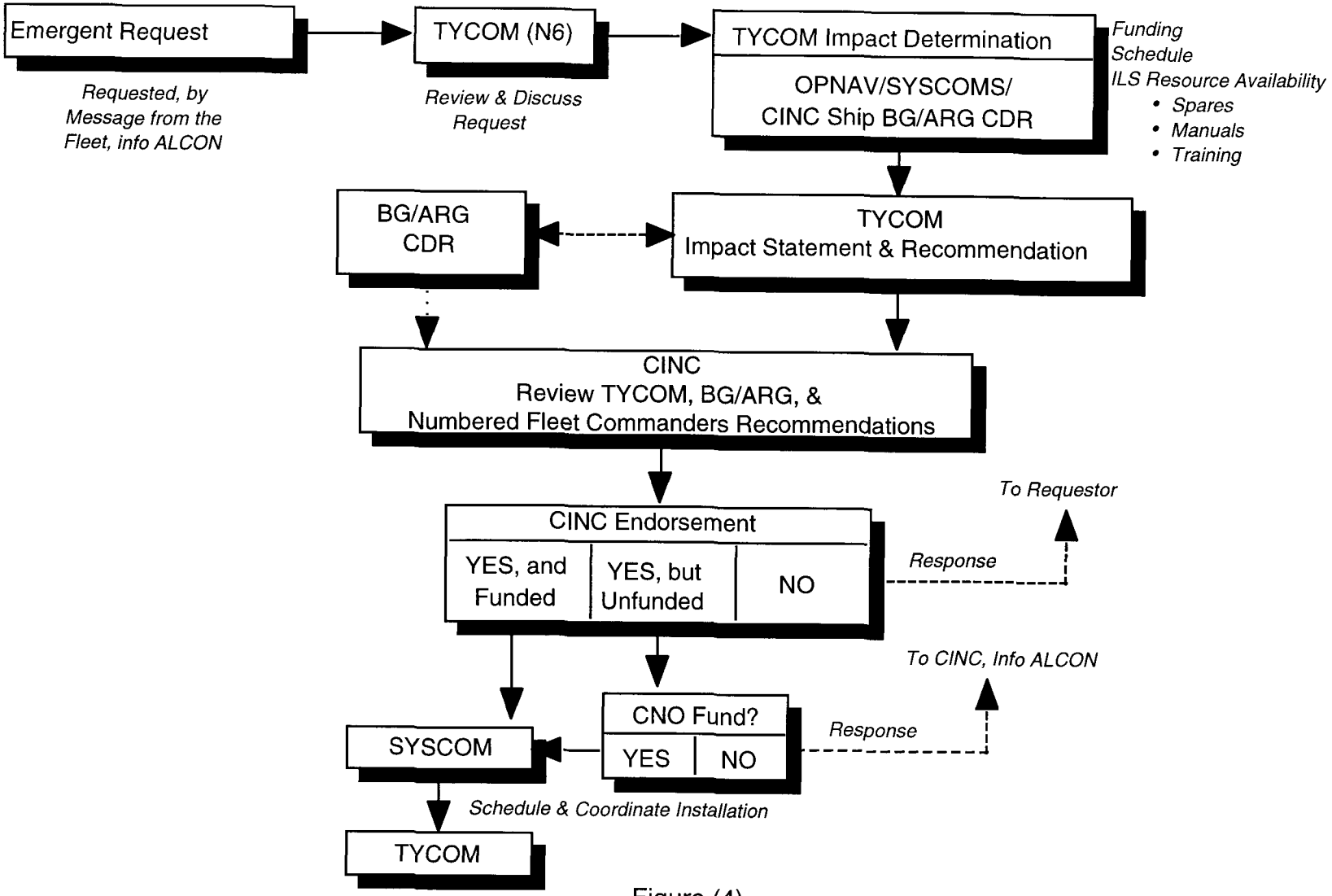


Figure (4)

Fleet Modernization Program (FMP) Process Summary

1. Background The FMP process is described in detail in references (a) through (c). It is the process by which ships of the active and reserve fleets are modernized. Reference (c) requires that all ship modernization follow the policies and procedures of the FMP; however, some modification to the FMP processes to accommodate the speed of emergent technology change within a JTG/BG/ARG deployment context may be required. SPAWAR C4ISR enhancements are particularly sensitive to technology change and represent an extremely high JTG/BG/ARG configuration priority. They also lend themselves, in most cases, to AIT installation methodology, more so than many complex combat systems and HM&E modernization.

2. Objectives.

a. The objective of the FMP is to:

(1) Provide for the orderly planning, programming, budgeting and installation of improvements to ships and submarines of the active and reserve fleets. Improve ships and submarines capabilities and material condition, improve Fleet readiness by improving standardization within ship classes and to improve safety, reliability, repairability and habitability of ships, submarines, and equipment.

(2) Preserve the goals of full, accurate engineering, design, standardization and ILS while also accommodating the emerging elements of the speed of technology change, acquisition streamlining and reform, COTS/NDI, JTG/BG/ARG deployment requirements and configuration and AIT installation methodology.

b. The basic elements of the FMP processes will be summarized in this enclosure in three (3) sections:

(1) The SHIPALT development process.

(2) The FMP development process (ship overhaul package and AIT Program development process).

(3) Special NAVSEA and SPAWAR FMP management considerations.

2. SPAWAR FMP Responsibilities

a. Chief Engineer (SPAWAR 05) General Responsibilities.

(1) Responsible for management and coordination of all Command modernization efforts on surface ships and submarines.

(2) Responsible for supporting PDs and PMWs in developing FMP SPAWAR C4ISR POM and budget submission.

(3) Has technical and programmatic authority and responsibility for the integration of SPAWAR C4ISR installations.

(4) Technical director of integrated installation engineering efforts.

(5) Chairs the Integrated Product Teams (IPTs) for Integrating Systems.

(6) Responsible for coordinating installation issues with the program office, OPNAV, System Integration and Installation Managers and the field activity performing the installation.

(7) Responsible for the review of all SPAWAR C4ISR FMP installation funding documents and tasking letters for FMP technical accuracy.

(8) Responsible for approval and release of all PMW proposed SPAWAR C4ISR installation tasking letters.

(9) Responsible for overall schedule and direct customer (Fleet) interface.

(10) Responsible for coordinating with SPAWAR Systems Centers, SPAWAR C4ISR Ship Superintendent all waterfront scheduling and all issues relating to SPAWAR C4ISR installations and modifications.

(11) Responsible for negotiating the development of the SPAWAR C4ISR Annual Implementation Plan and Execution Plan with PMWs.

b. Chief Engineer (SPAWAR 05) Specific Responsibilities.

(1) Class Desk Officers

(a) Chairs the Platform Integrated Product Teams (IPTs)/Systems Engineering Working Groups (SEWGs).

(b) Prepares the SPAWAR JTG/BG/ARG Baseline D-18 Message for release.

(c) Responsible for the development and maintenance of the Class SPAWAR C4ISR Master Plans.

(d) Serves as the SPAWAR single point of contact with the Fleet for assigned ship classes.

(e) Prepares the SPAWAR D-12 Funding Status Update Message for release.

(f) pproves and signs for release all PMW proposed SPAWAR C4ISR installation tasking letters.

(2) FMP Implementation Policy Office.

(a) Serves as the central SPAWAR point of contact for FMP policy.

(b) Responsible for all FMP database maintenance.

(c) Responsible for development and maintenance of the Work Plan, Annual Implementation Plan and Corporate Execution Plan.

(d) Manages the Field Change Installation Program (FCIP).

(e) Reviews all SPAWAR C4ISR FMP installation funding documents for FMP technical accuracy.

c. System Integration/Installation Manager (SPAWAR 05).

(1) Proposes SPAWAR C4ISR installation tasking to SPAWAR 05F Class Desk Officers and coordinates with the PMWs to provide installation funds to the field activities performing the installations.

(2) Coordinates specific equipment/technical issues with the Chief Engineer Class Desk Officer and the field activity (AIT and SPAWAR C4ISR Ship Superintendent) performing the installation.

(3) Responsible for managing and executing all SPAWAR C4ISR Installations and DSA funding.

d. Program Office (PD/PMW).

(1) Provides installation schedules for each Fiscal Year to the Chief Engineer's Office for inclusion in SPAWAR's Work Plan and Implementation Plan.

(2) Complies with the milestones of enclosure (5) and provides to SPAWAR 05F Class Desk Officers with proposed tasking.

(3) Responsible for program execution.

(4) Negotiates the development of the SPAWAR C4ISR Annual Implementation Plan and Execution Plan with the Chief Engineer.

(5) Reviews SPAWAR D-18 Messages, D-16 Conference inputs and D-12 Funding Status Messages.

(6) Funds SPAWAR Systems Centers for installation execution and program support in accordance with the Annual Implementation and Corporate Execution Plans.

(7) Shall direct AITs to report to the SPAWAR C4ISR Ship Superintendent upon receipt of tasking/funding for installation execution.

(8) Ensures a fully integrated system is delivered.

(9) Ensures procurement timelines are aligned to installation schedules.

(10) Provides Life Cycle management and In-service Engineering services for cognizant systems.

e. SPAWAR Systems Centers (SPAWAR Executing Agents)

(1) Responsible for SPAWAR C4ISR installations, as funded and tasked.

(2) Provides the SPAWAR C4ISR Ship Superintendent resources.

(3) Coordinates all installations through the SPAWAR C4ISR Ship Superintendent's Office at SPAWAR Systems Centers San Diego and SPAWARSYSCEN Charleston.

(4) Responsible for executing the SPAWAR C4ISR Annual Implementation Plan as tasked and funded.

(5) Coordinates installation issues with the SPAWAR Class Desk Officer, Equipment Integration Managers, Planning Yards, other AIT Teams, and when necessary, with the NAVSEA Ship Program Managers (SPM).

(6) Provides the SPAWAR C4ISR Superintendent's Office with required information as outlined in enclosure (6).

3. FMP SHIPALT Development Process. The basic element of the FMP is the SHIPALT (as described in references (a) through (c)). However, all types (Title D, F, K and KP) share a common development process involving three basic design products normally developed in a series: the Justification/Cost Form, Ship Alteration Record (SAR), and SHIPALT Installation Drawings (SID).

a. Justification/Cost Form (JCF)

(1) The JCF is the focus of the FMP requirements definition process. The format is defined in NAVSEA TECH SPEC 9090-210 in reference (b) and is a one page summary of the

alteration description complete with class applicability, critical material requirements and estimated costs.

(2) The JCF is the vehicle for presenting a concept to a NAVSEA Configuration Control Board (CCB), who can decide to proceed to the next design step, or to defer or disapprove the concept on the basis of incompatibility with established Fleet/OPNAV master plans and priorities.

(3) Once a JCF is approved by the CCB, the concept receives a SHIPALT number. It is then entered into the FMP Management Information System (FMPMIS) by NAVSEA SPMs, and the SHIPALT Record (SAR) development may be tasked.

(4) There is a direct relationship between the JCF, the collection of SPAWAR C4ISR enhancement requirements, the development of the SPAWAR Class SPAWAR C4ISR Master Plan, and the definition of resource requirements in the POM.

(5) SPAWAR JCF Responsibilities

(a) Chief Engineer (SPAWAR 05) General Responsibilities:

1 Responsible for review and approval of all JCFs.

(b) Chief Engineer (SPAWAR 05) Specific Responsibilities:

1 Class Desk Officer

a Updates Class SPAWAR C4ISR Master Plans as new JCFs are developed and approved.

b Reviews all JCFs for responsible ship classes.

2 FMP Implementation Policy Office

a Updates the FMPMIS Dictionary as required.

b Coordinates and tracks JCFs through approval at NAVSEA Configuration Control Boards.

c Coordinates the updates of all SPAWAR strategic plans outlined in enclosure (1), Figure (1).

d Advises SPAWAR C4ISR Ship Superintendent's Office when JCFs are approved and SHIPALT number is assigned by the NAVSEA SPM.

(c) System Integration/Installation Manager (05).

1 Approves all JCFs for technical accuracy.

2 Attends NAVSEA Configuration Control Boards to present SPAWAR C4ISR JCFs as required.

3 Signs all JCFs.

(d) Program Office (PD/PMW).

1 Develops SPAWAR C4ISR JCFs which will be forwarded to the appropriate NAVSEA Configuration Control Board via Chief Engineer.

2 Attends NAVSEA Configuration Control Boards as required.

(e) SPAWAR Systems Centers (SPAWAR Executive Agents). Assists in JCF development as required.

b. The SHIPALT Record (SAR).

(1) The SAR format and content is described in NAVSEA TECH SPEC 9090-500B in reference (b). It is a more complete document than the JCF and is class specific, containing sufficient information to be used as the basic criteria for the development of installation designs and drawings, testing and material support requirements and engineering and ILS documentation. SPAWAR C4ISR SAR development may be accomplished by SPAWAR Headquarters or its field activities, or Planning Yard. All SARs must receive final approval by the Planning Yard, NAVSEA Ship Program Manager and NAVSEA Technical Directorate, and in the case of SPAWAR C4ISR SARs, the responsible SPAWAR PMW.

(2) SPAWAR SAR Responsibilities.

(a) Chief Engineer (SPAWAR 05) General Responsibilities:

1 Responsible for the review and approval of all SARs by the SSET.

(b) Chief Engineer (SPAWAR 05) Specific Responsibilities:

1 Class Desk Officer.

a Updates the Class SPAWAR C4ISR Master Plans as new SARs are developed and approved.

b Reviews all SARs for the responsible ship classes and forwards to the SSET for approval.

2 FMP Implementation Policy Office.

a Updates the FMPMIS Dictionary as required.

b Coordinates and tracks SARs through development and approval.

c Advises and provides copies of SPM approved SARs to SPAWAR C4ISR Ship Superintendent's Office.

d Coordinates the updates of all SPAWAR strategic plans as outlined in enclosure (1), Figure (1).

(c) System Integration/Installation Manager (SPAWAR 05).

1 Approves all SARs for technical accuracy.

2 Signs all SARs.

(d) Program Office (PD/PMW).

1 Coordinates the development of SPAWAR C4ISR SARs and funds NAVSEA and the Planning Yards for SAR review. NAVSEA will task the Planning Yards.

2 Funds the development of SARs.

3 Tasks SAR development in concert with Program Office funding.

4 Provides a copy of SAR funding documents to the appropriate NAVSEA SPM.

(e) SPAWAR Systems Centers (SPAWAR Executive Agents) Assist in the development of SARs as required.

c. Ship Alteration Installation Drawings (SIDs).

(1) SIDs are derived from the class SAR, specific to individual hulls. They are developed in accordance with NAVSEA TECH SPEC 9090-600 of reference (b) and are collections of drawings and diagrams to be used by an installing activity for the accomplishment of all SHIPALT installations. They include system, arrangement, structural, manufacturing, assembly, detail, rip out and temporary access drawings as well as cabling sheets. They are

normally developed by the EFA AIT as tasked by the PD, PMW and SPAWAR 05. Approval is required in all cases by the Planning Yard.

(2) In accordance with agreements with the NAVSEA SPMs, SPAWAR C4ISR SIDs will be developed for the lead ships in a class. Red-line copies will be developed and used for all follow-on ships in the class.

(3) SID development includes two shipchecks of the subject ship. The first shipcheck is performed prior to SID development, which is the Design Shipcheck. The second shipcheck is performed upon completion, but prior to issuance of the SIDs, and is referred to as the Verification Shipcheck.

(4) SPAWAR SID Responsibilities.

(a) SPAWAR Chief Engineer (SPAWAR 05) Specific Responsibilities:

1 FMP Implementation Policy Office will manage the update of the Work Plan/Implementation Plan.

(b) System Integration/Installation Manager (SPAWAR 05).

1 Ensures the Work Plan and Implementation Plan are updated to reflect SID development.

(c) Program Offices (PD/PMW).

1 Tasks SPAWAR Sytems Centers and for SID development and review.

2 Funds SPAWAR SPAWAR Systems Centers and Planning Yards for SID development and review.

3 Provides a copy of all SID funding documents to the appropriate NAVSEA SPM. The SPM will task the Planning Yard for SID review and approval.

4 Provides status of SID progress to SPAWAR 05 for implementation into Work Plan.

(d) SPAWAR Systems Centers (SPAWAR Execution Agents) will develop SIDs as tasked and funded and provides copies to the SPAWAR C4ISR Ship Superintendent's Office.

d. SHIPALT Development Milestones. The most important milestone in the SHIPALT development process is completion of the SIDs 12 months prior to the start of the overhaul or availabilities in which the SHIPALT is installed. This allows for bid specification development, Work Definition Conference activities and development of the integrated maintenance and

availabilities in which the SHIPALT is installed. This allows for bid specification development, Work Definition Conference activities and development of the integrated maintenance and modernization work package for the availability. All other development milestones precede and are keyed to that date. In the case of very complex alterations they may precede that date by as much as two years.

e. SPAWAR Considerations

(1) Since many SPAWAR C4ISR SHIPALTs are installed by an AIT during pierside availabilities, the SID 12 month lead time date for AIT installations may be shortened to ensure rapid technology insertion. A more realistic pre-installation milestone for pierside AIT installations is at a minimum one quarter prior to the planned installation to support the Quarterly TYCOM Scheduling Conference. This significantly shortens the development process but is not in itself rationale for abbreviating the SAR and SIDs themselves.

(2) SPAWAR Field Change Process

(a) If a change impacts only the system and not the ship, it should be processed as a Field Change in accordance with references (j) and (k). The Field Change cannot, therefore, change the footprint or increase power, weight or air conditioning requirements or impact interfaces to other equipment. If power, weight or air conditioning is increased, the change must be a NAVSEA SHIPALT.

(b) For an AIT installation of a Field Change, the PMW will process an ECP and concurrently prepare a Field Change Bulletin. The ECP will contain the technical information in the normal format. The Field Change Bulletin, where technical information is required, will reference the ECP by number. When the ECP is approved at the PMW CCB, the PMW will forward a draft Field Change Bulletin to SPAWAR 05 for concurrence and assignment of a Field Change Number. All ILS requirements must be met and accurate configuration control must be maintained in accordance with ECP procedures. SPAWAR 05 will maintain Field Change Numbers in the Field Change Installation Program (FCIP) database for all SPAWAR C4ISR Field Changes.

f. Relationship of SHIPALT Development to the SPAWAR Concept of Operation and FLTCINC/SPAWAR Planning and Installation Process. The SHIPALT or enhancement concept must be sufficiently identified to allow the Platform IPT to include it in the SPAWAR Class Master Plan. As SHIPALT development continues and as costs and resource requirements are refined, more complete knowledge of material procurement requirements and timelines, design completion dates and available resources become available and specific hull/SHIPALT scheduling/programming can take place to accommodate prioritization requirements of scheduled overhauls and specific JTG/BG/ARG composition.

4. The FMP Development Process. The process of developing annual FMP programs, individual overhaul and availability SHIPALT packages and AIT Programs is summarized in paragraphs (a) through (g) below:

a. Development of an Integrated/Prioritized OPNAV FMP. As described in detail in reference (c) during the POM process, fleet capability requirements are identified as a result of Joint Mission Area/Support Area (JMA/SA) assessments undertaken for the Resources Requirements Review Board (RRRB). OPNAV Resource Sponsors (CNO N6 and N8) then identify SHIPALTs and concepts that will meet these requirements and present them to the Ships Characteristics Improvement Panel (SCIP) Working Group, where they are integrated into an overall OPNAV prioritized modernization plan.

(1) This step has direct applicability to the development of the SPAWAR Class SPAWAR C4ISR Master Plans. It provides a framework of OPNAV priorities which should be consistent with guidance to NAVSEA Platform Managers who develop and provide the Surface Ship Combat System Master Plan to the Fleets for JTG/BG/ARG prioritization, and for subsequent Work Plan development and resource requirement refinement.

b. Development of SHIPALTs to Support the Integrated FMP. Described in detail in paragraph 4 of this enclosure.

c. FMPMIS Data Entry.

(1) FMPMIS is CNO's official FMP data repository. Once a SHIPALT number is assigned to a JCF, the appropriate NAVSEA SPM enters the SHIPALT data into FMPMIS. This allows for identification and dissemination to all participants of critical planning and programming data, including material requirements, design status, hull applicability and installation schedule. The responsibilities for each element are contained in the FMPMIS Data Dictionary and subject data entry is a continuous process. The completion of data definition and entry, to a large measure, dictates the success of the FMP planning effort. This step relates directly to the refinement of the resource requirements. It also provides basic data dissemination allowing for SHIPALT installation scheduling and executability determination for the Work Plan, Implementation Plan and Execution Plan.

(2) Maintaining FMPMIS is a dual function between NAVSEA SPMs and the SPAWAR Chief Engineer's Office. The SPAWAR Chief Engineer's Office for Implementation is responsible for:

(a) Entering and maintaining SPAWAR C4ISR AIT SHIPALT schedule in FMPMIS. This is accomplished through the Global Alteration Installation Teams Schedule (GAITS) module of the NAVSEA Alteration Installation Planning System (AIPS) database.

(b) Scheduling specific SHIPALT data fields in FMPMIS for scheduled CNO overhauls. This is accomplished via the Ship Alteration Budget Reporting Evaluation System (SABRES).

(c) Entering and updating each SPAWAR C4ISR element contained in the SPAWAR FMPMIS Data Dictionary and the continuous updating of specific SPAWAR C4ISR FMP data fields in FMPMIS.

d. Categorization and Prioritization of SHIPALTs.

(1) Reference (c) provides the SHIPALT categorization criteria. Each SHIPALT is placed in one of six categories which eases subsequent prioritization. Categorization and prioritization are the responsibilities of OPNAV (N6 for SPAWAR C4ISR and N8 for all others). They must review the categories and priorities annually and include SYSCOMs and FLTCINCs in this effort. The category and relative priority (AMT Priority) of each SHIPALT is entered into FMPMIS providing essential data to manage the sequence of alteration installation.

(2) SPAWAR Responsibilities

(a) SPAWAR PMWs will coordinate SPAWAR C4ISR SHIPALT categorization and prioritization with the OPNAV Resource Sponsors.

(b) The SPAWAR Chief Engineer's Office for Implementation will represent the Command at OPNAV's FMP Prioritization Conferences and will coordinate PMW participation when required.

e. Scheduling of Availabilities/Installations. Two alternatives exist for planning SHIPALT installations:

(1) Depot Level Availabilities (Regular Overhauls, Selected Restricted Availabilities, etc.). These are major maintenance availabilities during which modernization requiring major industrial facilities may be scheduled. These availabilities are scheduled over a six-year period, for all ships, in annual Fleet Scheduling Conferences hosted by each FLTCINC. Participants also include TYCOMs and SYSCOMs. The resulting overhaul schedules and all subsequent changes are entered into FMPMIS by OPNAV (CNO N43), allowing individual SHIPALTs to be programmed into specifically scheduled availabilities.

(2) Alteration Installation Team (AIT) Installations. SHIPALTs may be installed by special teams developed for specific alteration programs. TYCOMS will provide ship availability schedules to be utilized by AIT managers (normally SYSCOMs). All AIT installations are governed by references (a) through (k), and must be scheduled for installation at the Quarterly TYCOM Scheduling Conferences chaired by the TYCOM (CNSL or CNSP).

(a) These scheduling processes relate directly to the development and refinement of the Work Plan and Implementation Plan and are steps contained in the SPAWAR/FLTCINC Planning and Installation Process.

(3) SPAWAR Responsibilities. SPAWAR's Chief Engineer's Office for Implementation or claimancy representative will represent SPAWAR at the Annual FLTCINC Depot Level Scheduling Conferences, SPAWAR/NAVSEA Pre-Screening Conferences, and the Quarterly TYCOM Scheduling Conferences and will coordinate PMW participation when required.

f. Programming SHIPALTs into Specific Availabilities.

(1) This is the responsibility of the OPNAV Resource Sponsor. It is accomplished using SABRES which extracts data from FMPMIS and allows OPNAV sponsors to anticipate proposed SHIPALT installation or AIT installation schedules, with estimated costs, within budget constraints. The OPNAV sponsors will program and approve all SHIPALT installations including AIT programs, in specific ship availabilities, AIT programs and fiscal years, using SABRES. N6 has delegated this responsibility to SPAWAR. SABRES also produces the budget displays for submission of the FMP installation and design budgets to NAVCOMPT, OSD/OMB and Congress.

(2) This step relates directly to development of the Implementation and Execution Plans and provides the financial constraints for AIT programming that takes place at Quarterly TYCOM Scheduling Conferences.

(3) SPAWAR Responsibilities. CNO has delegated the SPAWAR C4ISR SABRES Management responsibility to SPAWAR 01. The SPAWAR Chief Engineer's Office for Implementation accomplishes the actual SABRES data entry and distribution of budget (NC 50) reports in support of SPAWAR 01.

g. Ensuring Executability. Three events take place that refine execution planning and ensure optimum executability of planned installations:

(1) NAVSEA Advance Planning Letters are prepared according to reference (a) by the NAVSEA SPM and sent to the installing activity (Naval Supervisory Authority) 18 months prior to the start of overhaul. They list all Title K SHIPALTs, ORDALTs and Field Changes programmed for installation on a specific ship scheduled for overhaul, along with cost estimates for installation and procurement of certain materials, and information on high risk alterations.

(2) NAVSEA Authorization Letters are prepared according to reference (a) by the NAVSEA SPM and sent to the installing activity (Naval Supervisory Authority) 12 months prior to the start of overhaul. They provide authorization for the installation of all Title K SHIPALTs, ORDALTs and Field Changes in that availability. They also provide planning cost estimates and material requirements and instructions.

(3) Quarterly, NAVSEA will host an Alteration Verification Conference (AVC) to review the executability of all SHIPALTs scheduled for installation during the same calendar quarter, one year in the future. Participants include SYSCOMs with an emphasis on the material and design community/codes. Principal review elements are design (SAR/SID) status, ILS information status and material delivery status. Selected SHIPALTs may be deferred or canceled from availabilities depending upon the level of risk associated with these delivery dates which is determined at the AVC. These events relate directly to the refinement of the Implementation Plan and the Execution Plan.

(4) SPAWAR Responsibilities. The SPAWAR Chief Engineer's Office for Implementation is responsible for coordinating the SPAWAR review of all Advance Planning Letters and SHIPALT Authorization Letters that include SPAWAR C4ISR SHIPALTs, and will represent SPAWAR at the AVCs, with inputs from the PMWs.

5. Special NAVSEA/SPAWAR FMP Management Considerations The following is a summary of current NAVSEA/SPAWAR FMP Management.

a. Background. The configuration, capability and funding responsibilities of CNO Resource Sponsorship for SPAWAR C4ISR rests with CNO N6. All other SPAWAR equipment sponsorship rests with CNO N096 and N87 and all NAVSEA platform sponsorship rests with CNO N8. Successful FMP planning, programming and execution therefore, depend upon close coordination between SPAWAR and NAVSEA as executive agents of this sponsorship to ensure the effective marriage of equipment and platform modernization.

b. Policy. SPAWAR C4ISR SHIPALT installation and planning, obligation, or expenditure of resources, may not be initiated for a SHIPALT until the installation has been programmed for accomplishment in SABRES. Beginning in FY 98, SPAWAR C4ISR design development (DSA) expenditures may not be initiated for a SHIPALT until it has been entered into SABRES.

c. Process Review.

(1) Planning and Programming. CNO (N6, N87 and N096) resource sponsorship funds development and installation of SPAWAR C4ISR SHIPALTs. CNO (N8) is responsible for directing and prioritizing all other SHIPALTs to be installed in Navy ships. SPAWAR will develop SHIPALT designs for SPAWAR C4ISR equipment installations, in coordination with NAVSEA, for NAVSEA approval. SPAWAR will prepare the FMP budget for SPAWAR C4ISR SHIPALT equipment procurement and SHIPALT installation and design (DSA). NAVSEA SPMs and their Program Executive Officer (PEO) counterparts will coordinate the preparation of all FMP Advance Planning and Authorization Letters with SPAWAR, whenever SPAWAR C4ISR SHIPALTs are included. NAVSEA SPMs will enter all Title K SHIPALTs and SHIPALT data into FMPMIS (including SPAWAR C4ISR AIT SHIPALTs). However, SPAWAR will maintain SPAWAR C4ISR SHIPALT manday and incidental material fields (via SABRES) as well as AIT scheduling (via GAITS) and SPAWAR C4ISR cognizance migration

(via FMPMIS Dictionary). SPAWAR will also manage the SPAWAR segment of the CNO SABRES program as directed by CNO.

(2) SPAWAR is provided all SPAWAR C4ISR FMP funding (procurement, installation and design) from CNO (N6, N87 and N096). SPAWAR will procure and deliver to accomplishing activities, all SPAWAR Headquarters Centrally Provided Material (HCPM) and other FMP material under their procurement cognizance. SPAWAR will oversee the installation of all SPAWAR C4ISR SHIPALTs and will fund installation activities directly for SPAWAR C4ISR SHIPALT installations except those in availabilities under NAVSEA contract, in which case SPAWAR will provide the installation funds to NAVSEA by Project Directive. SPAWAR will provide DSA funding for SPAWAR C4ISR SHIPALT development and support as coordinated among SPAWAR PMWs, NAVSEA SPMs and PEO counterparts and SPAWAR's Chief Engineer's Office. NAVSEA will execute all DSA efforts at private planning yards with funds provided by SPAWAR.

d. Responsibilities. Under SPAWAR 01's fiscal responsibility:

(1) Chief Engineer (SPAWAR 05) is responsible for:

(a) Development of the SPAWAR Annual Execution Plan, with inputs from the Program Office (PD/PMW).

(b) Assisting in development of the FMP POM and budget.

(c) Coordination the execution of SHIPALT installations.

(2) Program Office (PD/PMW) Manages SPAWAR C4ISR procurement, SHIPALT installations and DSA budget development (coordinated and submitted by SPAWAR 01).

(3) FMP Implementation Policy Office:

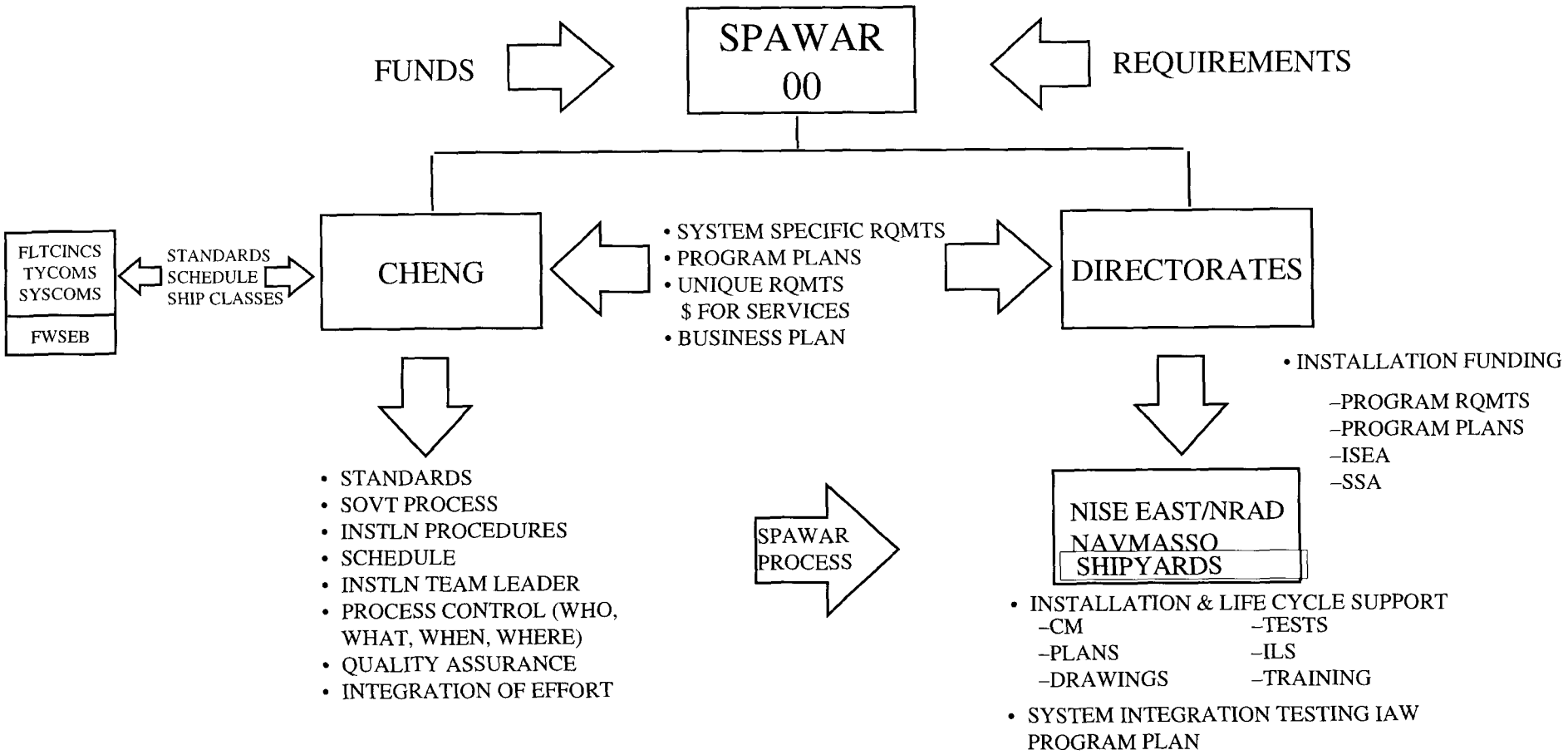
(a) Develops the POM and budget and manages the financial execution for the Field Change Installation Program (FCIP).

(b) Reviews all SPAWAR C4ISR install and DSA funding documents.

(c) Maintains SABRES database and distributes budget (NC 50) reports.

6. FMP Product Delivery Process. The details of this process, as appeared in the SPAWAR Concept of Operations, are displayed in enclosure (4), Figure (5).

FMP PRODUCT DELIVERY PROCESS



BASIS

- PD RESPONSIBLE FOR PROGRAM EXECUTION
- CHENG RESPONSIBLE FOR OVERALL SCHEDULE & DIRECT CUSTOMER (FLEET) INTERFACE AT PLANNING LEVEL
- PD/CHENG NEGOTIATED PROGRAM PLAN DISCUSSION (SCHEDULE, FUNCTIONAL CAPABILITIES, TESTING, FUNDING FOR SVCS) LEADS TO NEGOTIATED CORPORATE EXECUTION PLAN
- PD STRIVES FOR CRITICAL MASS AT FIELD (BUSINESS CENTERS) TO LEVERAGE "JUST IN TIME" COTS CAPABILITIES (CM, ILS, TNG)
- PD FUNDS FIELD FOR INSTALLATION EXECUTION AND PROGRAM SUPPORT (ISEA,SSA) IAW EXECUTION AND IMPLEMENTATION PLANS
- CHENG COORDINATES WATERFRONT SCHEDULE & PROVIDES "C4I SUPT"
- PD/FIELD TEAMS REPORT TO "C4I SUPT" FOR INSTALLATION EXECUTION

Figure (5)

SPAWAR C4ISR INSTALLATION MANAGEMENT CHECK LIST FOR CHIEF ENGINEER/PROGRAM DIRECTORATES

SHIP HULL # _____

SHIPALT # _____

C4ISR SYSTEM NAME _____

Single POC for Installation Team/Ship:

Name _____
Code _____
Phone No. _____
Activity _____

Legend:
A = Installation start date
C = Class Desk Officer
S = System Integration/Installation Manager
F = FMP Implementation Policy Office
P = Program Office

***Completion milestones for each item are shown in bold**

A. Planning Stage

Responsibility	
C/P/S	1. Is there Design Service Allocation (DSA) funding available to support SHIPALT design? If no, what is the plan for funding? **(D-20 to D-12)**
C/P/S/F	2. Has Justification Cost Form (JCF) been developed/approved: Yes____, No_____ **(D-20 to D-12)** a. If yes, what date was the JCF approved by NAVSEA Ship Program Managers (SPMs) Configuration/Change Control Board (CCB) and what is the assigned SHIPALT number _____ b. Has SHIPALT data been loaded into FMPMIS by NAVSEA? If no, when planned? ____

C/P/S	3. Ship Alteration (SAR) Development: Who develops? Planning Yard (PY)_____, NAVSEA 03 ___ or Echelon III AIT_____. **(D-18 to D-12)** a. Planning Yard: (1) Has PY been tasked by NAVSEA SPM? If yes, when _____ and NAVSEA tasking letter serial number and date? _____. (2) Has PY been funded?: If yes, what is funding document number and date? _____ If no, when planned? _____ (1) Has it been PY Approved? If yes, when? _____. If no, what is the planned date? _____ b. NAVSEA 03K: (1) Has 03K been tasked? If yes, when _____ and NAVSEA tasking letter serial number and date? _____ (2) Has 03K been funded?: If yes, what is funding document number and date? _____ If no, when planned? _____ (3) Has 03K SAR been approved by PY? If no, what is planned date? _____ c. Echelon III AIT: (1) Has tasking been issued? If yes, what is SPAWAR tasking letter serial number and date _____. If no, when planned? _____ (2) Has funding been issued? If yes, what is funding document number and date? _____ If no, when planned? _____ (3) Has SAR been forwarded to PY for approval? If yes, when _____? If no, when planned? _____ (4) Has funding been provided to PY for SAR approval? If yes, what is funding document number and date? _____ If no, when planned? _____ (5) Has NAVSEA SPM been notified that SAR and funding have been forwarded to PY? _____ If no, when planned? _____
C/P/S	4. Ship Installation Drawing (SID) Development: **(D-9 SID Product Completion)** Who develops? Planning Yard (PY)_____ or SPAWAR Echelon III AIT ____.

a. Planning Yard:

(1) Has PY been tasked by NAVSEA SPM? If yes, when _____ and NAVSEA tasking letter serial number and date? _____. (NAVSEA Tasks/SPAWAR Funds)

(2) Has PY been funded to review/approve SIDs?_____ If yes, what is funding document number and date? _____ If no, when planned? _____

(3) Expected PY completion date? _____

b. SPAWAR Echelon III AIT:

(1) Has AIT been tasked? If yes, what is SPAWAR tasking letter serial number and date _____. If no, when planned? _____

(2) Has AIT been funded? If yes, what is funding document number and date? _____ If no, when planned? _____

(3) Has SID been forwarded to PY for approval? If yes, when _____? If no, when planned? _____

(4) Has funding been provided to PY for SID approval? If yes, what is funding document number and date? _____ If no, when planned? _____

(5) Has NAVSEA SPM been notified that SID and funding have been forwarded to PY? _____ If no, when planned? _____

c. Design Review

(1) Was Topside/below decks considerations included in the design? If no, why not?

_____

(2) Are there HM&E requirements?
If yes, is there funding to cover the cost? _____ If funding is inadequate what is the plan?_____

(3) Has shipcheck been accomplished? If no, when scheduled?

_____ _____

(4) Are Ship/System HVAC/power margins adequate? If no, what is being done to correct problem?_____

(5) Ship/System HVAC/power distribution adequate? If no, what is being done to correct problem?

_____

(6) Shipcheck completed? If yes, when? _____ If no, why not? _____

C/P/F/S	5. Integrated Logistic Support (ILS) Information: a. Has System ILS Informaiton sheet been provided to 05F-D? If no, when planned or what are the issues? (Submit issues up the chain of command.) **(D-9 ILS Product Completion)**

B. Execution Stage

Responsibility	
C/P/F/S	1. Is the SHIPALT planned for CNO Scheduled Overhaul Installation?: **(18 to 12 months prior to CNO scheduled overhaul)** a. If yes, is the SHIPALT in NAVSEA's Advance Planning and/or Authorization Letter and Scheduled in FMPMIS? _____ b. If yes, has NSY been funded? If yes, what is funding document number _____. c. If no, when will funding be executed_____.
C/P/S	2. System installation budgeted in NC-50?: **(D-20 to D-18)** a. If Yes, identify P1 line _____ and amount planned _____ for execution.
C/P/S	3. Equipment available? If no, when will it be available? _____ Have all parties been notified that install will be impacted? _____ **(D-18 to D-12)**
C/F/S	4. Is the SHIPALT scheduled for AIT Installation?: **(D-16 to D-9)** a. Has installation been approved at SPAWAR/NAVSEA pre-screening conference? If no, why not? _____ (Submit issues up the chain of command.) b. Has SHIPALT been entered into GAITS database? Yes_____, No_____ c. Has installation been approved and scheduled at Quarterly TYCOM Scheduling Conference? If no, what are the issues? _____ (Submit issues up the chain of command.)
C/P/S	5. If installation is post-TCD, has waiver been granted? If no, when planned? and who is submitting request _____ **(D-15)**

	6. C4ISR AIT Installation Tasking/Funding: **(By the end of the first quarter of the fiscal year)** a. Has the tasking been reviewed and chopped by the NAVSEA SPM? If no, why not? _____ b. Has the tasking been reviewed and chopped by SPAWAR 05FD/SPAWARSYSCEN San Diego D60F? If no, why not? _____ c. Is the applicable ship planned to receive the C4ISR SHIPALT, scheduled for decommissioning within 5 years? If yes, has a SECNAV waiver been granted? _____ If no, has waiver been requested? _____

SPAWAR C4ISR INSTALLATION CHECK LIST
SPAWARSYSCEN San Diego/SPAWARSYSCEN CHARLESTON/NAVMASSO

SHIP HULL # _____

SHIPALT # _____

C4ISR SYSTEM NAME _____

Single POC for Installation Team/Ship: **Name** _____
Code _____
Phone No. _____
Activity _____

I. Pre-Installation

A. Installation Location: _____

B. Navy Technical Representative: _____
Phone No. DSN:_____, Commercial: (_)_____

C. Installation Start Date: _____
Installation End Date: _____

D. Copy of POA&M attached: Yes_____, No_____

E. EMI or Tempest Inspection required? Yes_____ No_____
Date Scheduled _____

F. If in a shipyard, has shipyard been notified? Yes___, No____
What services have been arranged? _____

G. Funding Received? Yes____,No____ Doc. No._____
(Submit unfunded status to Chief Engineer's Office.)

H. Site Survey Shipcheck Completed? Yes____, No____
If yes, date _____. If no, why not? _____

I. Has Planning Yard approved SIDs? Yes _____, No _____
Has funding been provided to PY for SID review/approval?
Yes _____, No _____
Has copy of funding document been forwarded to the appropriate NAVSEA SPM?
Yes _____, No _____

Has PY been tasked by appropriate NAVSEA SPM, if required? Yes _____, No _____

J. Has Planning Yard approved the SAR? Yes _____, No _____
Has funding been provided to PY for SAR review/approval?
Yes _____, No _____
Has copy of funding document been provided to the appropriate NAVSEA SPM? Yes _____, No _____
Has PY been tasked by appropriate NAVSEA SPM, if required? Yes _____, No _____

K. Has a copy of the Title Block w/ signature been received from the PY? Yes _____, No _____

II. ILS Information For SHIPALTs:

Are the following logistic elements available to support the install? If not, when will they be available?

A. Training: Yes_____, No_____

B. Technical Manuals: Yes_____, No_____

C. Planned Maintenance System (PMS): Yes_____, No_____

D. Allowance Parts List (APL): Yes_____, No_____

E. Special Purpose Electronic Test Equipment (SPETS): Yes___, No_____

F. On Board Repair Parts (OBRP): Yes_____, No_____

G. Maintenance Assistance Modules (MAMs): Yes____, No_____

III. Installation Stage

A. Hardware delivered to the Performing Field Activity (PFA)?
Yes_____, No_____ If no, what is missing and when will it be delivered?_____
(Submit late hardware delivery status to Chief Engineer's Office.)

B. Software required? Yes_____, No_____ If yes, has it been delivered to the PFA?
Yes_____, No_____ If no when will it be delivered? _____

C. Ship's visit request message generated? Yes_____, No_____ (not needed if scheduled at Quarterly TYCOM Scheduling Conference.

D. Ship in-brief scheduled? Yes _____, No _____

E. Ship in-brief conducted? Yes_____, No_____
If no, why not? _____

F. Equipment/System pretest conducted prior to installation? Yes_____, No_____ If no, why not? _____

G. Have interfacing systems already been installed on board and tested? Yes_____,No_____
If problem is detected, has ship's force been notified? Yes_____,No_____

IV. Post Installation

A. Has the installation been completed? Yes_____, No_____
If no, what did not get accomplished?_____

B. OJT held/computer based training provided for ship's force? Yes_____, No_____
Operator Training? Yes_____, No_____ If no, when will it be accomplished? _____
Maintenance Training? Yes_____, No_____ If no, when will it be accomplished?
_____

C. System Operational Verification Test (SOVT) Completed? Yes_____, No_____
Are there outstanding discrepancies? Yes_____, No_____
Is there a plan for correction? Yes_____, No_____
Has SOVT deficiencies been reported to Chief Engineer's Office. Yes_____, No_____ If no, when planned

D. Completion message sent by ship? Yes_____, No_____

E. NAVSEA 9090-310A requirements met? Yes_____, No_____ *If no, what is incomplete?*
_____

F. Outbrief conducted? Yes_____, No_____ If no, why not and when planned?
_____

G. Ship Selected Records (SSRs) completed: Yes_____, No_____
Has PY been funded to update SSR's? If not, when planned? _____
If yes, has copy of funding document been forwarded to the appropriate NAVSEA SPM? Yes_____, No_____

H. Has Allowance Parts List (APL) numbers been provided to the ship? Yes _____, No _____

I. Has APLs been filled _____ or bald APLs _____
Physically inspected: Yes _____, No _____
If no APLs, provide a OLSS; ____ Number and date approved by SPAWAR: No. _____ Date _____

J. Follow-up visit conducted required? Yes_____, No_____ If yes, date conducted: _____. If no, when scheduled?_____

K. Final drawing update/delivery? Yes_____, No_____ When accomplished? _____

L. ILS delivery complete? Yes_____, No_____
If no, what are the outstanding components and what is the plan to make up the shortages?_____

M. 4790 CK's completed? Yes_____, No_____ If no, when planned for completion?_____ Has the PY been funded to update SCLSIS? Yes_____, No_____

N. Completion report sent to applicable NAVSEA SPM with copy to C4I Superintendent's Office? Yes_____, No_____ (completion report format as described in SPAWAR letter 4720, Ser 05F22C/389 of 14 Mar 1996)