

## CHAPTER VIII

### MILITARY CONSTRUCTION PROGRAMMING

From 1967 to 1974, the Naval Facilities Engineering Command was responsible for the programming of Naval and Naval Reserve military construction requirements, and for assisting the Chief of Naval Operations in the processing, justification, submission, presentation, and support of these requirements through the Navy Department, the Office of the Secretary of Defense, Office of Management and Budget, and the Congress for enactment into public law. The Command was also responsible for planning and design fund execution plans, and for the administrative control and assignment of these funds. In addition, it was responsible for coordinating the Marine Corps Reserve Program in the foregoing procedures.

The Military Construction Programming Program was primarily concerned with all those projects which were to be funded under the Military Construction, Navy (MCON) and Military Construction, Naval Reserve (MCNR) appropriations, including all acquisitions of lands and acquisition or construction of real property facilities other than those specified by law as minor construction. Minor construction projects were to be funded from operations and maintenance appropriations.

The Military Construction Program is perhaps the most thoroughly and critically reviewed program in the Navy. This is because of the generally small dollar amount made available annually for this program and the large number of deficiencies that need to be corrected, all competing for these dollars. As a result, it is essential that various management actions be taken to insure that as many authorized valid projects as possible are completed within the funds made available by Congress.<sup>1</sup>

Military construction programming is primarily a project and budget programming function; projects are proposed and defended before the appropriate congressional committees and from this a military construction program and budget are developed for each fiscal year. The actual design and execution of specific construction projects within the yearly Military Construction Program is the responsibility of the Command's Construction Program. The execution of specific projects is dealt with in detail in the chapter devoted to construction.

The Military Construction Program requires two separate acts of Congress to become reality. The first is an authorization law and the second an appropriation law. Based upon the approved budget level, the Naval Facilities Engineering Command assembles material to support separate requests for authorization to the appropriate military construction subcommittees of the House and Senate Armed Services Committees, and for appropriation to the subcommittees on military construction of the House and Senate Committee on Appropriations.

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<sup>1</sup>Military Construction Program Management, NAVFAC P-328 (June 1971), p. 9-1.

## FUNCTIONAL TRANSFER

Responsibility for the control of military construction programming was given to the Command on 30 June 1967 by the Secretary of the Navy. This was done as part of the general realignment of the functions of the Shore Installation Division of the Office of the Chief of Naval Operations. The Shore Installation Division transferred all military construction programming and budgeting functions to the Naval Facilities Engineering Command but retained all functions relative to policy, requirements planning and decisions as to military construction programming priorities. This functional transfer effectively consolidated within the Command all master planning and engineering, and military construction programming and budgeting.<sup>2</sup>

From 1967 until 1969 the Command's new program was still in its formative stage. During this period the criteria were not yet established for the determination of appropriate personnel support levels for the functions involved, nor were program execution procedures formulated in their final form.

During 1969 and 1970, workload indices were developed through a process of reviews and analyses and new staffing levels were formulated. Between 1970 and 1973 many more changes were effected. The Command

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<sup>2</sup>Memo from OP-00 to CNM (OP-00 memo 363-67) of 3 Jul 1967, subj: Realignment of functions of OP-44 and Naval Facilities Engineering Command.

made significant improvements in its military construction programming procedures. These improvements made it possible to operate more effectively, despite the tight money constraints and ceiling controls which characterized this period.<sup>3</sup>

Functions not specifically associated with military construction programming efforts were transferred and other functions were consolidated allowing a more extensive use of the remaining personnel. The level of effort for each function was constantly scrutinized to eliminate activities which did not contribute to the accomplishment of Program V's goals and objectives.

To provide a more supportable annual Military Construction Program an iterative programming process was developed and instituted. The iterative process employs the basic multi-year programming techniques to produce each portrayal of the proposed annual program. Starting about mid-August and continuing until about mid-May of the next year, a proposed project listing was distributed every six to eight weeks to show proposed project content for the upcoming annual program.

Distribution of these project listings was made to each major claimant and each Engineering Field Division (EFD). Prior to each iteration the major claimants were required to review their proposed projects in each investment category and either submit a revised

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<sup>3</sup>Memo from Asst. Cdr. for MILCON Programming of 16 Apr 1974, subj: NAVFAC Code 21 organization.

priority list or approve the content as is. The eventual key to getting projects into the formulated program to be presented to the Navy Military Construction Review Board (NMCRB) was the assignment of the top four or five priorities within each investment category. The degree of success in achieving effective and efficient programming was therefore directly dependent upon the actions of the major claimants in identifying top priority projects.

The iterative process also dictated those projects on which Engineering Field Divisions would provide supporting documentation. For those projects in the proposed annual year program, and those projects alone, the Engineering Field Divisions ensured that the category codes and project descriptions were accurate. The scope of each project was checked as fully supported by the planning system documents. Above all, however, the cost was at least evaluated on the basis of the latest Department of Defense Cost Review Guide for military construction. The refinement of project costs was essential to the stability and validity of each year's program through the review stages by higher authority. With the major claimants and Engineering Field Divisions displaying active and cooperative participation, the following benefits resulted.

1. Surfacing of projects likely to be viewed and recommended by the NMCRB considerably in advance of its annual meeting.
2. Engineering Field Division preparation of project documentation reduced through elimination of projects not having a chance of being programmed. There would not be a 100 percent

accurate prediction of projects to be eventually programmed

but the success rate would be vastly improved.

3. Projects which were programmed would have more realistic scopes and costs and would be obtainable without the benefit of Program Cost Estimates (PCE). The use of PCEs could then be limited to justification of projects with peculiarities.

4. Documentation for most projects to be included in a budget estimated submittal to the Office of the Navy Comptroller or the Office of the Secretary of Defense could be furnished to the Naval Facilities Engineering Command at earlier dates rather than as a massive input just prior to the submittal dates. Under past procedures, the administrative problems within the Command of handling last minute documentation to meet budget submittal deadlines created an almost impossible task.

5. The NMCRB could be convened at a later date so that the annual support level would be known from Program Objective Memorandum (POM) decisions. Also, some of the previous years' congressional deferrals might be known and could be considered for incorporation in the NMCRB recommended program.

The military construction liaison role increased steadily in importance and level of effort since its inception in 1968. A comparatively small group (10 people) of engineer program-managers in Code 21 now bore full responsibility for keeping all Washington level

interests within OPNAV, the Command, the Office of the Secretary of Defense and Congress attuned to major claimants' military construction needs and priorities. The liaison division played a major role annually in (1) setting the initial Military Construction Program content, (2) adjusting content to suit budget restraints, and (3) fostering the program through the Office of the Secretary of Defense (OSD) and congressional approvals. The record made during the seven years since the liaison function was begun bespeaks full achievement and redemption of the pledge made when the liaison group was conceived as the Naval Facilities Engineering Command's "window-on-the-world" of facilities requirements.

To be in a position to respond accurately and quickly to questions, the liaison personnel must visit activities, question users and operators, conduct extensive research, review background data, meet with claimants and maintain close, daily contact with Chief of Naval Operations staff officers.

Beginning in 1971, the Command made a concentrated effort to reduce the number of back-up witnesses required before Congress in annual hearings. Some twenty-one individual back-up people were used during the fiscal year 1971 hearings. By gradually transferring this witness role to the liaison divisions, the number was cut to twelve in fiscal year 1973 and was held at nine during fiscal year 1975. That the liaison function was active is manifested in annual military construction hearings records, where roughly one-third of the content is testimony by the liaison division directors.

During "off-the-record" preliminary hearings with committee staffs, liaison personnel met with committee staffs and were called upon to give briefings and discuss projects in detail. These preliminary meetings provided an essential link to a clear understanding of the content of annual military construction programs.

Over the years since 1967, the number of projects and the funding level of annual military construction programs increased greatly and the level of effort required to formulate the program also increased. For example, the coordinative effort to insure that new actions were addressed, such as the environmental impact assessment, economic analysis and, recently, potential energy involvement dramatically increased. The organization, however, absorbed the workload. After the transfer of military construction programming (OP-442) functions to the Command, the Office of the Chief of Naval Operations continued to retain certain responsibilities and staffing in order to provide command direction for the support activities carried out by Program V. Since 1971, there has been a continual erosion of the staff of the Office of the Chief of Naval Operations. This has necessitated a participation by the Command in activities previously accomplished by the Office of the Chief of Naval Operations.<sup>4</sup>

Although the Command became responsible for military construction programming in 1967, military construction programming did not appear as a separate entity in the planning instruments of the Command until

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<sup>4</sup> Memo from Asst. Cdr. for MILCON Programming of 16 April 1974, enclosure (a).

fiscal year 1972. In the Operating Plans of fiscal years 1968 through 1971, the Command's military construction programming functions had no existence as a separate program.

In 1971, the Command developed and issued a new type of planning tool, the Command Management Plan (issued June 1971 for fiscal year 1972). In it, Military Construction Programming appeared as a separate Command program (Program V). It was no longer simply an undifferentiated part of the Construction Program (Program IV). The creation of Military Construction Programming as a separate Command program was done at the behest of Rear Admiral Walter M. Enger, CEC, USN, the NAVFAC Commander at that time.<sup>5</sup>

The Command under delegation of authority from the Chief of Naval Operations provided services to the Deputy Chief of Naval Operations (Logistics) for military construction programming. Within the scope of this delegation of authority, the Command took the initiative in naval military construction programming to ensure the accomplishment of a number of goals.

Basically the Command was committed to ensuring (1) the development of the most effective and responsive military construction programs to meet facility construction needs, (2) the availability of adequate design funds to allow expeditious program execution, (3) the

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<sup>5</sup> Memo from NAVFAC 01 to CDRs and COs of EFDs, CBCs, and PWCs of 26 Jan 1971, subj: Command Management Concept and Related HQs. Code 01 Reorganization, enclosure (1), p. 2 "Establish a new program for MILCON programming, which is a relatively new Command function not yet included in the Program Management system."

availability of suitable collateral equipment for the initial outfitting of new construction work and (4) timely and responsive processing of emergency construction requirements.<sup>6</sup>

Under the same program, the Command additionally sought opportunities to participate in the initial stages of programming actions for facilities and supported the Chief of Naval Operations in translating requirements into effective programming actions. The Command also gave much attention to enhancing the habitability of personnel support facilities and improving the quality of the environment.<sup>7</sup>

For the accomplishment of its fiscal year 1972 military construction programming mission, the Command established two major program objectives: the provision of effective staff support to the Chief of Naval Operations for the development, coordination and maintenance of Navy military construction programming and the improvement of the management effectiveness and responsiveness of assigned centrally managed programs for planning and design funds, emergency construction, and initial outfitting of collateral equipment.

The Command established thirteen goals to be achieved by Program V during fiscal year 1972. These goals were: (1) the development and maintenance of the multi-year and annual military construction

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<sup>6</sup> FY 1972 Command Management Plan, NAVFAC P-441 (Jun 1971), p. A30.

<sup>7</sup> Ibid.

programming program, (2) the arrangement of visits by the program managers and liaison representatives to all major claimants and to 90 percent of naval activities which had line items in the military construction budget, (3) the maintenance of a high level of staff liaison and technical assistance for all echelons, (4) the provision of annual indoctrination briefings to all major claimants and Engineering Field Divisions on multi-year programming, (5) improvement of the validity of the annual military construction program to achieve a minimum of 85 percent approval by the Navy Military Construction Review Board, (6) achievement of 90 percent validity of the military construction data bank in order to develop more meaningful program objectives, (7) funding the \$600 million naval facilities deficiency backlog for fiscal year 1973, (8) effective development and execution of centrally managed programs, (9) reduction of document processing time for emergency projects to an average of three months, with none to exceed four months, (10) development and promulgation of Navy standard guideline criteria and procedures for the planning and procurement of collateral equipment, (11) increasing the funding level of the Emergency Construction Program to \$15 million for fiscal year 1973, (12) reduction of design breakage and lost effort in the management of Planning and Design funds to 10 percent in fiscal year 1972, and (13) ensurance of the obligation of 100 percent of collateral funds prior to the end of the fiscal year.

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<sup>8</sup>  
FY 1972 Command Management Plan, NAVFAC P-441 (Jun 1971), pp. C82-C83.

The Command radically altered the form and number of its Program V goals for fiscal year 1973. The thirteen goals of fiscal year 1972 were reduced to only seven: (1) the preparation for the Chief of Naval Operations of documentation for the annual cyclical phases of the Military Construction Program, and the carrying out of distribution to appropriate review levels, (2) completion of liaison visits to activities and multi-year indoctrination briefings in support of military construction programming execution, (3) improvement of the validity of military construction programming data, (4) reduction of the Navy facilities deficiency backlog through increased funding allocations for military construction, (5) processing of emergency construction projects for the Chief of Naval Operations and the Secretary of the Navy, (6) initiation of final design on fiscal year 1974 projects and proposed cost estimates for the fiscal year 1975 program, and ensurance of the availability of sufficient funding to complete design on associated fiscal year 1973 construction programs and (7) obligation of collateral equipment initial outfitting funds.<sup>9</sup> The Command made only one change in these program goals for fiscal year 1974. The last goal, calling for the obligation of collateral equipment initial outfitting funds, was restructured into another program as the function was transferred from the military construction programming function.

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<sup>9</sup>FY 1973 Command Management Plan, NAVFAC P-441 (Jun 1972) pp. C142-C143.

## MAJOR AREAS OF MILITARY CONSTRUCTION PROGRAMMING EMPHASIS

The remainder of this chapter will be devoted to a survey of some of the major construction programs that the Command's military construction programming function was involved in during the years 1967-1974.

## ENVIRONMENTAL QUALITY AND PROTECTION

At the specific behest of the Congress and the Secretary of the Navy, the Chief of Naval Operations allocated military construction funds to finance the Navy's Environmental Quality and Protection Program. (See Chapter 11 for more information on the projects themselves.)

Environmental deterioration has been a vital Navy concern since 1965. The Navy, through the Command, devoted an increasing proportion of its resources to the protection of the environment. As the state of the environment generated more and more concern, it became apparent that the Navy would have to do its share to protect the environment. Thus, the Navy pledged to cooperate with all federal, state, and local agencies involved in environmental protection and to comply with the most rigid standards promulgated by any of them. The Command, which was responsible for the execution of the Navy's environmental program, was prepared to meet this challenge.<sup>10</sup>

Of all agencies within the federal government, the Department of the Navy probably had the greatest potential for adverse impact on the

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<sup>10</sup>"The Environmental Quality Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

environment. This resulted from both the scale and the nature of its operations in carrying out its defense mission. To place the magnitude of its operations in perspective, a few pertinent facts are necessary. The Navy operated more than 200 major shore activities with more than 550,000 military and 325,000 civilian personnel. Additionally the Navy operated over 600 vessels and 6,600 aircraft of all types and thus carried out operations ashore, in the air, on the surface and below the sea. Naval facilities existed in all fifty states and in numerous foreign countries.

The seriousness of the environmental problems was acute since the Navy was primarily concentrated in the coastal zones of thirty-two states where, incidentally, the nation's population density was greatest and interest in environmental issues was highest. Ashore, the Navy generated water, air and noise pollution from the numerous operations carried on at its many diversified types of facilities which included naval and air stations, shipyards, aircraft rework facilities and training centers. At sea, the Navy's ships and aircraft also generated the same types of pollution.<sup>11</sup>

In response to the Water Quality Act of 1965, the Command in 1966 initiated a program to improve waste water discharges in order to meet evolving standards and to enhance and protect the quality of one of the nation's most vital resources, its water. Since that time numerous

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<sup>11</sup> A Study of the Implementation of the National Environmental Policy Act by the United States, Research, Inc.

laws and regulations were put into effect as technology and basic understandings of the effects of pollution have become known.<sup>12</sup>

When the Command started its water clean-up program, it was estimated that only 65 of the 170 million gallons of waste water discharged daily from Navy shore facilities met the new water quality standards. The first funding for corrective construction projects was received in fiscal year 1968.

Major changes continued to be implemented as progress in environmental protection became more evident. By 1974 naval facilities were required to have discharge permits under the 1972 amendments to the Federal Water Pollution Control Act. In addition to budgeting increases in the federal facility clean-up effort, one important executive order was revised and strengthened in 1973. Executive Order 11752, issued in December 1973, superseded a less comprehensive order, Executive Order 11507 of February 1970. The new order committed the federal government to a leadership position in cleaning up all "environmental pollution" connected with the "design, construction, management, operation and maintenance of its facilities." The executive order had a profound effect on the Naval Facilities Engineering Command as its major responsibility was the Navy's shore facilities.

To satisfy Executive Order 11752, pollution abatement deficiencies continued to be monitored. Noise pollution, solid waste disposal,

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<sup>12</sup>"The Environmental Quality Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

oily waste facilities, air emissions from power plants, continued improvement in water quality, and land use planning were several areas which received increased emphasis from the Command. The Chief of Naval Operations, having recognized the importance of this program, indicated continued support by programming approximately \$90 million per year for fiscal years 1978 through 1980.<sup>13</sup>

CHART 8-1 THE ENVIRONMENTAL QUALITY PROGRAM			
Congressional Approvals			
Fiscal Year	Air (\$000)	Water (\$000)	Total (\$000)
1968	0	\$23,382	\$23,382
1969	\$6,178	4,904	11,082
1970	4,100	20,815	24,915
1971	1,210	25,899	27,109
1972	15,962	21,251	37,213
1973	24,194	51,216	75,410
1974	27,636	55,107	82,743
1975	10,908	47,663	58,571
TOTAL	\$90,188	\$250,237	\$340,425
Proposed			
1976	\$3,262	\$45,077	\$48,339
1977	3,870	44,851	48,721

<sup>13</sup>"The Environmental Quality Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

## SHIPYARD MODERNIZATION

At the direction of Secretary of Defense, Robert F. McNamara, a review was undertaken in the mid-1960s to determine the nature and extent of excess naval shipyard capacity and to provide a basis for determining how that excess capacity might be reduced. The Secretary of Defense appointed a Shipyard Policy Board chaired by Secretary of the Navy Paul H. Nitze. The working level group of the board, the Shipyard Analysis Group, performed an in-depth analysis of each of eleven shipyards. Future requirements for the naval shipyard complex were based upon three contingency situations: peacetime, cold war, and all-out hot war. A total workload for each contingency was developed for these shipyards. From these workload requirements the size and number of naval shipyards needed to service the fleet under each contingency was determined. The following recommendations were made and approved by the Secretary of Defense: (1) close the New York Naval Shipyard, (2) gradually phase out the Portsmouth Naval Shipyard prior to 1975, (3) merge the Mare Island and Hunters Point Naval Shipyards under a single commander and, last it was proposed that (4) the Department of the Navy should prepare a five-year modernization program for the yards to be retained with priority to projects offering a three year economic payback.

The Bureau of Ships (now the Naval Ship Systems Command) undertook a shipyard modernization program on the basis of recommendation number four of the Shipyard Analysis Group. The purpose of the program was to modernize the remaining naval shipyards on a cost effective basis.

They were to be able to handle the workloads developed for the three contingencies situations. The starting point for the program was to take the peacetime requirements and size the complex to accomplish this work on an eight-hour day, five-day week basis. By the use of more than one shift per day and overtime, the projected workload generated by cold and hot war contingencies could be accomplished. Specific objectives of the program were to upgrade industrial efficiency, obtain balanced capacity based on projected need, gain the new capabilities required to service new ships and shipboard weapons systems, and improve shipyard surge capacity to react to a limited general war situation.<sup>14</sup>

The modernization program was the capital investment program through which the major industrial facilities and equipment for the naval shipyards were acquired. The program was initially for eight naval shipyards at nine sites and consisted of two phases. Phase one, the "Short Range Program" spanning fiscal years 1965-1969, emphasized the three year payback projects. This phase was completed on schedule and consisted of 120 projects accomplished with a total authorization of \$98.9 million. The original program cost estimate submitted to the Office of the Secretary of Defense for phase two, the "Long Range Program," had its technical base approved 27 November 1968.

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<sup>14</sup>"Shipyard Modernization Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

This phase was predicated on an eight year time period (fiscal years 1970-1977) at a total estimated cost of \$700 million (1968 fiscal year dollars) worth of military construction funding. The Office of Secretary of Defense subsequently directed restructuring the project to a ten year program (fiscal years 1970-1979) at an estimated cost of \$769 million (fiscal year 1970 dollars). Considerable military construction funding difficulties were experienced during fiscal years 1970-1975. Military construction funding received during this period was \$147 million as opposed to the approved funding level of \$530 million for the same period. As a result implementation of the program was significantly delayed.

An appraisal of the Shipyard Modernization Program in conjunction with changes in fleet size and composition, recent shore establishment realignment actions, and austere facilities and equipment budgets clearly indicated the need to update and restructure the modernization program. As a consequence, the Chief of Naval Operations directed that such a restructuring be accomplished and the Naval Ship Systems Command initiated action to do so. This effort was accomplished in-house and principally on-site in the naval shipyards. It began in November 1973. The on-site phase was completed, and final completion was scheduled for May 1975. During the interim, until completion of the update, there was no conflict in the fiscal year 1976 Military Construction Program. The total cost of the Shipyard Modernization Program remaining after fiscal year 1976, as reflected in the most

CHART 8-2

## NAVSHIPS SHIPYARD MODERNIZATION MCON PROGRAM

Shipyard	Funded by Congress (\$ million)									
	Fiscal Years									
	1970	1971	1972	1973	1974	1975	1976	1977	1978	Total
*Portsmouth	--	4.0	--	--	2.8	4.9	8.8##	12.2	8.1	40.8
**Boston	***7.7	0	0	0	0	--	--	--	--	7.7
Philadelphia	10.8	0	0	0	0	0	0	4.4	8.8	24.0
Norfolk	2.3	4.0	1.9	5.1	7.4	4.5	0	5.4	0	30.6
Charleston	5.9	6.9	7.3	5.3	0	0	5.3#	1.7	6.0	38.4
Long Beach	1.8	8.1	0	0	6.8	6.0	8.0#	2.7	5.9	39.3
**Hunters Point	6.9	5.0	0	0	0	--	--	--	--	11.9
Mare Island	3.5	0	.4	0	1.9	0	0	4.7	12.2	22.7
Puget Sound	7.5	4.9	1.7	3.1	2.3	.4	1.5#	6.2	6.1	34.7
Pearl Harbor	3.5	0	1.4	.4	0	0	0	9.7	9.5	24.5
Total	49.9	32.9	12.7	13.9	21.2	15.8	23.6	47.0	56.6	274.6

\*Not included in the original Shipyard Modernization Program.

\*\*Boston and Hunters Point disestablished May 1974.

\*\*\*Reprogrammed by Navy.

#Includes request for amendments at Charleston 214, Long Beach 4.7 and Puget Sound 1.5.

##Congressional introduction (authorized); if appropriated will reduce Portsmouth FY 77 by 6.0 and 6.0 will be added to another shipyard to maintain FY 77 total of 47.0.

recent Chief of Naval Operations Military Construction Program Objectives, was put at \$464 million.<sup>15</sup>

COLD IRON PROGRAM

The Cold Iron Military Investment Program was established by the Chief of Naval Operations in 1969. This program which furnished shipboard utilities from an external source was considered essential for fleet readiness and for improvement in the morale and retention of personnel. The program was limited to homeports on United States territory. Like the Environmental Program, the Cold Iron Program was carried out through the coordination of two of the Command's programs, Military Construction Programming and Operations and Maintenance. Military Construction Programming was responsible for planning and

CHART 8-3 COLD IRON INVESTMENT PROGRAM OVERVIEW (\$ million)

Fiscal Years	1972	1973	1974	1975	1976	1977	Remaining Backlog
CINCUSNAVEUR	--	--	--	--	*--	**--	--
CINCLANTFLT	0.6	8.5	11.7	18.6	0.9	28.7	27.4
CINCPACFLT	1.7	9.8	9.9	7.5	--	--	38.5
Other	--	5.2	4.3	3.7	0.9	--	9.7
Total	2.3	23.5	25.9	29.8	1.8	28.7	75.6

\* Program Submitted to Congress  
 \*\* Program Submitted to OSD

<sup>15</sup>"Shipyard Modernization Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

funding, while Operations and Maintenance was responsible for actual execution.<sup>16</sup>

For fiscal years 1973 through 1975, an annual average of approximately \$26.0 million was allocated for programming Cold Iron projects.<sup>17</sup>

#### NAVAL AIR REWORK FACILITY MODERNIZATION

The Command was also responsible for military construction programming for the modernization of naval air rework facilities. The program to modernize navy air rework facilities and equipment began in fiscal year 1969. These plants had undergone little improvement since the Second World War. For example, from fiscal year 1960 through 1968 an average of only \$2.35 million of military construction funds was appropriated annually for all naval air rework facilities. These amounts proved inadequate to keep Second World War vintage plants capable of meeting the increased and more complex workloads of the 1960s. Obsolete buildings and equipment contributed to increases in aircraft in-process time, higher rework costs, and failure to meet fleet workload requirements. Longer rework time resulted in fewer operational aircraft available to the fleet. In-depth studies conducted on three first line fighter and attack aircraft during 1967 and 1968 showed that investments in new buildings and equipment would result in substantial reductions in aircraft rework time, slow the rapid escalation in customer costs to a more normal level, and improve

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<sup>16</sup>A discussion of specific "cold iron" activity will be found in Chapter 11 which deals with Operations and Maintenance.

<sup>17</sup>"Cold Iron," NAVFAC MILCON Programming, Code 21D (undated briefing).

efficiency. The Naval Air Rework Facility Modernization Program was the result of an extension of this evaluation to all aircraft models at all rework activities.

From fiscal year 1969 through 1975 a total of \$111.8 million of military construction funds was appropriated for construction on a wide range of projects at naval air rework facilities. Some representative items were avionics facilities, airframe rework hangars, aircraft painting and paint strip facilities, jet engine test cells, and component plating facilities. During the same period, funding for the companion effort to modernize industrial production equipment totalled \$103 million. As a result of the closure of the Naval Air Rework Facility, Quonset Point, Rhode Island and the consolidation of its workload, the overall naval air rework facility depot maintenance facility utilization rate was planned to be 88 percent by fiscal year 1976.<sup>18</sup>

The fiscal year 1976 military construction program did not include any naval air rework facility modernization projects.

Future workload at the six remaining naval air rework facilities was expected to remain at approximately the same level as in fiscal year 1975, which reflected the full migration of the workload from Quonset Point. Even though aircraft inventory and flying hours would decline, this would be offset by the increasing manhours required to rework the more complex aircraft. Hardcore production requirements

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<sup>18</sup>"Naval Air Rework Facility (NARF) Modernization," FAC 212D (6 Feb 1975), NAVFAC MILCON Programming, Code 21D.

which required military construction support beyond fiscal year 1975 totalled \$148 million. Subject to budget constraints, the Naval Air Systems Command would like the Command to program between \$10 and \$15 million annually to correct this hardcore backlog.<sup>19</sup>

#### TRIDENT

One of the most important areas of Military Construction Programming in recent years was the new United States sea-based missile defense system known as Trident. The Trident Missile System was one of the largest projects ever undertaken by the Navy. It involved a new missile, a new submarine to carry the missile and a new base complex to support the submarine. The Naval Facilities Engineering Command was given complete responsibility for the development and construction of this new base complex.<sup>20</sup>

Consideration of the Trident missile, submarine, and necessary bases began in 1966. A series of decisions was made on the program between 1968 and 1971. It was during this time that important studies on the nation's defense for the next twenty years and beyond were carried out. The purpose of these studies was to determine which systems of strategic weaponry were to get the highest priority.

The Trident ballistic-missile submarine arose during these years as a front-runner in the quest for the strong deterrent to the increased

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<sup>19</sup>"Naval Air Rework Facility (NARF) Modernization," FAC 212D (6 Feb 1975), NAVFAC MILCON Programming, Code 21D.

<sup>20</sup>A more detailed account of Trident will be found in Chapter 10.

strategic technology being developed by opposing forces. A lengthy study culminated in the announcement in February 1973 that Bangor, Washington had been selected as the site for the Trident base.<sup>21</sup>

The total Trident Program was to cost in the neighborhood of \$15 billion. Of this sum, \$650 million was programmed for the construction of the Bangor support site, which was the Command's primary area of responsibility in the overall Trident Program.<sup>22</sup>

#### NEW AIR WEAPON SYSTEMS SUPPORT FACILITIES

In fiscal years 1971 and 1972, Military Construction Programming had to begin programming ground support facilities for two new weapon systems projected for entry into service during the 1974-1975 time frame. These two new systems were the F-14 Fighter and the S-3 Anti-submarine Warfare Aircraft.

In fiscal years 1971 and 1973, facilities were programmed for the F-14 at the Naval Air Station, Miramar, California. The facilities involved were for training and maintenance.<sup>23</sup>

Facilities programmed for the new S-3 Antisubmarine Warfare Aircraft included air maintenance and operational flight training buildings

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<sup>21</sup>Ltr from Judge Advocate General, Navy Dept. to Asst. Attorney General Wallace H. Johnson, Jr., Land and Natural Resources Div., Dept. of Justice, of 20 Sep 1974.

<sup>22</sup>Interview with Mr. R.J. Lanoue, OICC Trident, Code OT-21, 23 May 1975.

<sup>23</sup>Interview with Mr. R.L. Bradley, NAVFAC MILCON Programming, Code 0213C, 26 May 1975.

avionics and maintenance shops (some only partly due to S-3 requirements), aircraft maintenance hangars, parking aprons, and a weapon systems training facility.<sup>24</sup>

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CHART 8-4                      F-14 MILCON SUMMARY FOR NAS, MIRAMAR

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Fiscal Year	Title	Size	Cost
1971	Aircraft Systems Training Building (both maintenance and operation)	71,651 s.f.	\$3,050,000
1973	Aircraft intermediate maintenance facility (only partly due to F-14)	47,450 s.f.	\$2,980,000
	Aircraft operational training building	5,161 s.f.	\$ 306,000

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<sup>24</sup> Interview with Ms. Melinda Lewis, NAVFAC MILCON Programming, Code 212D, 26 May 1975; Bradley interview.

## CHART 8-5

## S-3 MILCON SUMMARY FOR NAS, NORTH ISLAND

Fiscal Year	Title	Size (Square Feet)	Cost
1972	Air Maintenance Training Building	36,576	\$1,613,000 completed
1973	Operational Flight Training Building	15,000	800,000 completed
1974	Avionics Shop (only partially due to S-3 requirements)	32,504	1,640,000
1975	Aircraft Maintenance Hanger	116,502	6,195,000
	Aircraft Parking Apron	lump sum	1,039,000
	Intermediate Maintenance Shop (only partially due to S-3 requirement)	22,080	1,479,000
	Operational Training Building	20,354	1,437,000
1976	Aircraft Parking Apron	11,299,354	2,879,000

## CHART 8-6

## S-3 MILCON PROGRAM SUMMARY FOR NAS, MIRAMAR

Fiscal Year	Title	Size (Square Feet)	Cost
1974	Weapon System Training Facility	22,900	\$1,123,000
1975	Aircraft Maintenance Hanger	116,502	7,175,000
	Added in FY76		2,321,000

## ACCELERATED MEDICAL CONSTRUCTION PROGRAM

During late 1971 and early 1972, the Assistant Secretary of Defense for Health and Environment conducted meetings with the medical departments of the three services to discuss medical facility deficiencies and the rate of correction of those deficiencies. On 19 February 1972, the Secretary of Defense directed the Navy to submit plans for modernizing or replacing all inadequate medical facilities during fiscal years 1974-1978. This action effectively compressed a long-range (10 to 15 years) modernization program into five years. The accelerated facilities modernization program was designed to update and/or replace medical facilities in order to improve personnel efficiency and professionalism, and thereby increase the satisfaction and retention of both health care providers and beneficiaries. By a Program Budget Memorandum dated 5 August 1972, the Navy Department was provided a five-year funding program to correct medical facility deficiencies through military construction in fiscal years 1974 through 1978. This five year program was later extended into fiscal year 1979 to bring the medical modernization program to completion.<sup>25</sup>

By a Program Decision Memorandum dated 29 July 1974, the Navy Medical Modernization Program was split into two components--one funded through the Navy and the other through the Office of the Secretary of Defense. The Office of the Secretary of Defense Program was funded through the Office of the Assistant Secretary of

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<sup>25</sup>"Accelerated Medical Construction Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

Defense for Health and Environment as a medical construction contingency fund.

Working with the Naval Facilities Engineering Command, it was the Bureau of Medicine and Surgery's goal to upgrade or replace inadequate health care facilities in order to provide hospitals, clinics, and support facilities that would meet the recognized standards of the medical, dental and engineering communities.<sup>26</sup> Improvements in Navy health care facilities were necessary in order to provide health care

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CHART 8-7 HOSPITAL MODERNIZATION PROGRAM EXPENDITURES

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Fiscal Year	Funding (\$ millions)
1974	\$ 50
1975	80
1976	133
1977	141
1978	173
1979	100*
1980	100*

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\*These are only rough approximations. If appropriations are reduced some of the larger projects may have to be postponed until after fiscal year 1980.

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<sup>26</sup> Specific details of the Hospital Modernization Program will be found in Chapter 10.

professionals with technically adequate facilities in which to practice, so that they in turn could provide Navy and Marine Corps active duty personnel, their dependents, and other authorized beneficiaries with the highest attainable level of health care.<sup>27</sup>

#### ENERGY CONSERVATION

To effect maximum conservation of critical fuels and energy resources, the administration and the Department of Defense implemented a positive plan for the adjustment of the design and construction programs of the military services and defense agencies. A memorandum from the Assistant Secretary of Defense for Installations and Logistics, dated 6 December 1973, to the service secretaries, defense agencies and the National Security Agency stated an objective of achieving a 15 percent reduction in energy consumption. This plan required a two-step implementation: first, a modification of planned design and estimated costs for construction projects in the fiscal year 1975 and prior year military construction programs, and second, a comprehensive evaluation of all existing military facilities to determine practical modifications to such facilities needed to achieve the desired reduction in energy consumption.

Data and proposed adjustments in the fiscal year 1975 Military Construction Authorization and Funding Program were to be submitted

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<sup>27</sup>"Accelerated Medical Construction Program," NAVFAC MILCON Programming, Code 21D (undated briefing).

not later than 20 December 1973 to the Deputy Assistant Secretary of Defense (Installations and Housing) and the Deputy Assistant Secretary of Defense (Comptroller) for Program Budget. It was requested that all addressees investigate percentage factors to be applied against similar repetitive construction items in fiscal year 1975 and prior year programs.

The data and estimated costs for the second phase were to be developed and reflected in the proposed phased five-year program and submitted to the Assistant Secretary of Defense for Installations and Logistics by 1 May 1974.<sup>28</sup>

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CHART 8-8 PROPOSED ENERGY PROGRAMS FOR FY 1976 AND 1977

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Fiscal Year	MILCON	MCNR	Family Housing
1976	\$28,828,000	\$1,800,000	\$7,200,000
1977	58,600,000	1,100,000	9,000,000

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#### EMERGENCY CONSTRUCTION

In addition to programming major projects, the Naval Facilities Engineering Command also programmed military construction funds for Emergency Construction. Under this inclusive title existed a variety of authorizations for unforeseen, emergency or other urgent construction projects utilizing military construction funds. These

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<sup>28</sup> "MCON Energy Conservation," NAVFAC MILCON Programming, Code 21D (undated briefing).

authorities were classified as urgent minor construction, restoration of damaged facilities, and emergency or unforeseen construction.<sup>29</sup>

Urgent minor construction was provided for under the authority of 10 U.S.C. 2674. Continuing authorization was provided for the accomplishment of minor construction projects, within a cost not to exceed \$300,000, that were so urgently required that they could not be deferred pending receipt of approval through the normal authorization and funding process. Although operations and maintenance funds could be used for projects estimated to cost \$50,000 or less, military construction funds were required for all projects in excess of \$50,000. Each annual military construction program submission contained a request for an appropriation to accomplish projects in the above category. In recent years, the requests for minor construction have by far exceeded funds available. Therefore, only those projects with valid justifications and which were truly urgent had any possibility for approval. The Secretary of Defense instituted very rigid controls over minor construction projects to assure that this authority was not abused. In addition semi-annual reports of projects approved against this authority were submitted to Congress. In fact, each project approved under this authority must be completed and usable in itself. Therefore it is not possible to use this authority to augment the scope of a previously approved military construction program unless the first increment, in itself, was complete and usable.

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<sup>29</sup>Military Construction Program Management, NAVFAC P-328 (June 1971), p. 11-1.

The restoration of damaged facilities was provided for under the authority of 10 U.S.C. 2673. This code provided continuing authorization for the replacement of facilities damaged by fire, explosion, storm, or other uncontrollable factors. In general this authority was to be utilized only when facilities were damaged to the extent that the cost of repair would exceed 50 percent of the replacement value. Damage which could be repaired for less than 50 percent of the replacement value was funded from funds available for operations and maintenance in the same manner as for any other maintenance or repair project. Any restoration of damaged facilities projects estimated to cost less than \$300,000 were processed as minor construction projects.<sup>30</sup>

Emergency or unforeseen projects were provided for under Section 203 of each annual military construction authorization law. This section authorized the Secretaries of the Services to acquire or construct facilities required by certain new developments. Section 203 provided for a specific amount of authorization each year. In recent years this has been \$10 million. The authorization expired within a set period, usually on 30 September following the end of the fiscal year of the military construction authorization act.

As in restoration of damaged facilities projects, funds were not specifically appropriated for emergency projects. It was

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<sup>30</sup>Military Construction Program Management, NAVFAC P-328 (June 1971), p. 11-5.

therefore necessary to obtain funding approval for each group by a reprogramming action.<sup>31</sup>

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<sup>31</sup>Military Construction Program Management, NAVFAC P-328 (June 1971), p. 11-3.

CHART 8-9

## MCON AUTHORIZATION (EXCLUDING SOUTHEAST ASIA LEGISLATION AND NON-SPECIFIC AUTHORIZATION)

Fiscal Year	Public Law	NAVFAC Public Law Symbol	Unclassified	Classified	Emergency Construction	Special Projects	General Reduction	Original	Amendment	Current
								Authorization Total		Authorization Total
1968	90-110	A	454,348,000	6,784,000	(10,000,000)			461,132,000	10,649,000	471,781,000
1969	90-408	B	235,082,000	1,509,000	(10,000,000)			236,591,000	14,333,000	250,924,000
1970	90-142	C	295,495,000	10,810,000	(10,000,000)			306,305,000	8,372,000	314,677,000
1971	91-511	D	267,924,000	974,000	(10,000,000)			268,898,000	6,109,000	275,007,000
1971	91-456	E-250	144,000					144,000		144,000
1972	92-145		318,110,000	3,733,000	(10,000,000)			321,843,000	3,993,000	325,836,000
1973	92-545		515,667,000		(10,000,000)			515,667,000	17,743,000	533,410,000
1974	93-166		565,939,000		(10,000,000)	12,000,000	(17,500,000)	570,439,000	10,400,000	580,839,000
1975	93-552		552,456,000		(10,000,000)		(1,500,000)	550,956,000		550,956,000

## CHART 8-10

## LEGISLATION FOR SOUTHEAST ASIA

Fiscal Year	Public Law	Public Law Symbol	Appropriation No Authorization Legislated	Section 402	Section 501	Total <sup>1</sup>
1968	90-110	(AA)		16,300,000		16,300,000
1968	90-110	(AA)			17,964,000	17,964,000
1968	90-110	(AB)		5,226,000		5,226,000
1968	90-392	(AS)	11,300,000			11,300,000
1969	90-408	(BA)			51,357,000	51,357,000
	TOTAL		11,300,000	21,526,000	69,321,000	102,147,000
1970	90-408	(BX)		2,550,000		
1970	90-408	(CX)		475,000		
1971	90-408	(DX)		2,973,000		
1972	91-544 & 91-170	(EX)		13,069,000		
1974	91-511; 92-145; 92-545			4,891,500		
	TOTAL			23,958,500	(includes 534,000 Planning Funds)	